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ABSTRACT

Between April 1985 and January 1988, the Educational Testing Service evaluated Al Manaahil (The Sources), a television series in reading for Arab children. The series, produced and broadcast in Jordan, contained 65 half-hour shows in Modern Standard Arabic for children in grades 1 through 4. More than 5,000 children in Jordan, Morocco, and Tunisia were tested in the evaluation. Test data from Jordan showed a positive impact on children's reading skills. Positive results were similar for boys and girls, and they held up across different tests and different schools. Positive results were more pronounced on items more clearly related to specific reading goals. Most children liked the series, and responses of parents and teachers were also positive. A majority of teachers (54%) reported that the series had a positive or very positive effect on their teaching. Participants in an adult literacy program (33 of 83 participants) reported that they watched the programs on a regular basis, and viewers performed better on the series test battery than did nonviewers. Six appendixes provide details about the program; its test battery; the parent, teacher, and adult questionnaires; and the advisory committee for test development. (Contains 5 figures and 17 tables.) (Author/SLD)

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RESEARCH REPORT

EVALUATION OF AL MANAAHIL: AN ORIGINAL ARABIC CHILDREN'S TELEVISION SERIES IN READING

Richard T. Murphy

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Educational Testing Service
Princeton, New Jersey
August 1988

TM025003

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An Original Arabic Children's Television Series in Reading

Richard T. Murphy

Educational Testing Service
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March 1988

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ABSTRACT

Between April 1985 and January 1988, Educational Testing Service conducted an evaluation of AL MANAAHIL (The Sources), a children's television series in reading for Arab children. The series, produced and broadcast in Jordan, contained 65 half-hour shows in Modern Standard Arabic (MSA) designed for children in Grades One through Four. The shows were intended to expose children to modern vocabulary and examples of accurate uses of MSA in everyday situations.

More than 5,000 children in Jordan, Morocco, and Tunisia were tested in the evaluation. Based on the Jordan test data, AL MANAAHIL had a positive impact on children's reading skills. The positive findings were replicated in Government schools, United Nations schools, and Private schools. The findings were similar for boys and girls. They held up across different tests. The positive results were more pronounced on items more clearly related to specific goals of the series than on items less clearly related. The majority of children who participated in the testing program reported that they watched the AL MANAAHIL series and liked it.

Responses of teachers, parents, and other adults to an ETS survey about the series were also positive. The majority of teachers (65%) indicated that they liked the series or liked it very much. Most (74%) noted that the series had a positive or very positive impact on the children. When asked about AL MANAAHIL's effect on their teaching, a majority (54%) of teachers indicated that AL MANAAHIL had a positive or very positive effect.

In several adult literacy programs, participants were asked to take the AL MANAAHIL tests and respond to questions about how frequently they viewed the series and how much they liked or disliked it. Of 83 adults in the literacy sample, 33 (40% of the sample) reported that they watched the programs on a regular basis. That group of 33 performed better on the AL MANAAHIL test battery than a group of 28 who did not watch the series at all - a result that supports the overall positive findings of the evaluation.

In summary, based on the data gathered in 1986 and 1987, AL MANAAHIL had a positive effect on children in this study. It is likely to have a similar effect on children who view the series in the future in Jordan and other Arab countries.

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First, I want to thank Ellen B. Mandinach, research scientist at Educational Testing Service (ETS), who participated fully in planning this evaluation, in drafting its initial budget, and in making the decision for ETS to proceed with this study in Jordan. She helped to construct the first draft of goals and objectives, served as a valuable consultant during the project, reviewed all reports, and provided greatly appreciated encouragement and support.

In Jordan, there were two educators at the University of Jordan, Dr. Abdallah Kaylani, Dean of the Faculty of Education, and Dr. Muhammad Ibrahim, Director of the Language Center, whose contributions were absolutely essential. Dr. Kaylani directed the test development and data collection. Dr. Ibrahim, academic advisor to the entire AL MANAAHIL project, convinced Dr. Kaylani to accept responsibility for test development and data collection and then agreed to serve on the test development committee. I was very sorry to learn of his untimely death on October 31, 1987. I am very grateful to Dr. Kaylani and Dr. Ibrahim, not only for their outstanding professional contributions to the evaluation, but for their gracious hospitality to me during my numerous visits to Jordan during the project.

The United States Agency for International Development (USAID) funded the evaluation. Harold Freeman, Director for Human Resources, Science and Technology Division, Near East Bureau of USAID, provided overall direction. I thank him for clarifying the needs and interest of USAID, for valuable suggestions and guidance, and for arranging for USAID consultants to provide input into the evaluation.

Children's Television Workshop (CTW), continuing a relationship with ETS that began more than 20 years ago with the evaluations of the original Sesame Street and The Electric Company, asked ETS to undertake this evaluation. I want to thank CTW for their support, encouragement, professional expertise, and camaraderie during the project. Their sensitivity to and consideration for the needs of researchers is gratefully acknowledged. I want to thank especially Keith Mielke, Vice President for Research, Edward Palmer, and William Darnell for good advice and suggestions about the evaluation. Their research experience was very valuable. Finally, I want to express my gratitude to Lutrelle Horne, Joan Lufrano, Lois Fortune, Evelyn Davis, Thomas Keuneke, and Lisa Manno who helped make working with CTW a very enjoyable experience.

In Jordan, I would like to thank the members of the test development committee who worked with Dr. Kaylani and Dr. Ibrahim:

- Dr. Sami Khasawnih, Chairman, Department of Educational Administration, University of Jordan,

- Dr. Fakhri Tomalia, Dean of Students, Amman Technical Institute, and

- Mr. Mustafa Kaylani, experienced primary school teacher.

Dr. Anmar Kaylani, Professor in the Faculty of Education, selected the sample of schools, distributed the tests, and arranged for the recording and transmission of student responses to ETS. He was assisted by 15 faculty members and graduate students. I want to acknowledge and thank all the members of the University of Jordan community who participated in the data collection activities.

Also, in Jordan, I am grateful to my colleagues, Dr. Khalil Elaian, Dr. Farouq Elrousan, Dr. Farid Abu Zeineh, and Dr. Mohamed Shaheen who provided advice and friendship during my numerous visits to Jordan.

I also want to thank the AL MANAAHIL Advisory Committee (see Appendix F for a full listing) for their advice and suggestions. I want to thank especially Dr. Ahmed Hiassat who introduced me to the education system in Jordan, provided statistical information of the structure and characteristics of the system, made suggestions on the sample design, and served as my main contact with the school system outside the University of Jordan. I also want to express my special gratitude to the two members who coordinated the testing of children in their own countries, Dr. Abdelkader Ezzaki in Morocco, and Dr. Mohamed Maamouri in Tunisia. I am also very grateful to them for their wonderful hospitality during my visits to their countries.

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Finally, I want to thank Adele Lechowicz who handled all the day to day chores connected with the many components of the project - including arranging and revising complicated travel schedules, initiating and confirming the financial transactions in the Arab countries, maintaining contact with project participants, receiving and editing student response records and preparing them for data processing, producing all the tables and text for the final report, and proofing all documents and reports. And, thanks to Lorraine Carmosino who assisted her in producing and proofreading all the tables and figures.

Richard T. Murphy
Project Director

CHAPTER 1

INTRODUCTION

Children in Arab countries have an extra difficulty that most children do not experience when they begin school. The language used in reading and writing in Arabic is quite different from the vernacular Arabic dialects spoken at home. Dr. Muhammad Ibrahim, academic advisor to the AL MANAAHIL project, has described this issue in the following way:

> The question of literacy in Arabic has another dimension unknown in most languages. The fact that literacy in Arabic is possible only through standard Arabic, which is quite different from the vernacular Arabic dialects spoken at home, adds to the complexity of literacy acquisition by Arab youngsters. This linguistic problem is compounded by crowded classrooms, the insufficiency of children's exposure to standard Arabic and the critical shortage of qualified teachers.

The issue of children's learning Modern Standard Arabic (MSA) was central to the planning and execution of the Arabic television series AL MANAAHIL.

Although MSA is the language used for reading and writing, it has not been a language used in everyday speech. Children continue to speak in their local dialects when they return home from school. Arab nations are moving toward making greater use of Modern Standard Arabic in their speech as well as their writing. However, there is a concern that MSA is too formal for such use. In the AL MANAAHIL television series, Arab children see professional actors and actresses use MSA language accurately to communicate, to explain things, and to portray humor and warmth in everyday situations. They see MSA as a living, developing language.

AL MANAAHIL's overall purpose was clear in a general way, namely, to help children understand and use MSA. However, that was not sufficient for the evaluation. To evaluate the series, and the entire

project, Educational Testing Service (ETS) needed precise statements of purposes of the project. Based on the purposes of the project, and questions related to the purposes, ETS was able to design and implement an evaluation plan.

1.1. Purposes of the AL MANAAHIL Project

Once ETS began to examine the purposes of the project in greater detail, it became clear that there were a variety of purposes at different levels in this project. The United States Agency for International Development (USAID), Children's Television Workshop (CTW), Arab linguists, educators, and government officials all had their own questions. The evaluation would have to be responsive on a number of fronts.

USAID had as one of its important objectives the funding of projects with widespread appeal and effectiveness. This project, if it succeeded in creating a television series appealing to Arab children, might reach children in all Arab countries, not just in Jordan where the series was produced. If the MSA usage was acceptable across North Africa and the Middle East, this project would have a very widespread impact. One question of importance to USAID, therefore, was related to the extent to which the series was acceptable to a variety of Arab countries.

USAID was also interested in the process by which this project was conducted. In conversations and in written materials, Harold Freeman, the USAID director of the project, asked project participants to identify strategies and approaches that proved to be particularly fruitful - for example, the initial and continuing use of advisors by CTW, use of local expertise in the project, making of initial contacts, and so forth. USAID expressed a desire to obtain information that would allow it to determine the feasibility of expanding and replicating components of an "international model" for implementing USAID education projects in the future.

Finally, USAID expressed its interest in the impact of the project on institutions and organizations in the host countries, and on special groups of viewers - frequently mentioned were women and illiterate adults. USAID also expressed interest in receiving information about legal, contractual, administrative, and professional activities performed during the implementation and evaluation of the project.

CTW's primary purpose in this project was to co-produce its first entirely original international series. In keeping with its objective of working with countries that had made substantial investments in broadcast television, CTW agreed to co-produce with Jordan television producers 65 half-hour programs entirely in Modern Standard Arabic.

Arab educators and researchers willingly provided advice and assistance because they were interested in improving children's learning. And, the spread of Modern Standard Arabic throughout the Arab countries is a key goal of many Arab educators.

To attain the broad goals implied by these purposes, the United States Agency for International Development (USAID) and the Government of Jordan funded the production of the series aimed primarily at children in Grades 1,2,3, and 4. The programs were to supplement the formal instruction that children received in school and enhance the knowledge and skills the children already possessed to some degree.

Although all goals and objectives are important, and are within the scope of the evaluation, the language-specific goals were critical for the development of the reading tests needed to assess the skills and knowledge of the children. A complete copy of the language-specific goals of the project is given in Appendix A. The following is a summary of AL MANAAHIL's goals and objectives as they appear in a CTW brochure describing the Jordan project.

AL MANAAHIL'S Goals and Objectives

AL MANAAHIL addresses the needs of all Arab countries in reading curriculum, incorporating values and attitudes such as:

- o Arab culture and spiritual values
- o Scientific thinking
- o The dignity of manual labor
- o Appreciating women's role in society
- o Developing good health habits
- o Encouraging team work and cooperation
- o Respecting the views of others
- o Having consideration for the elderly and disabled

AL MANAAHIL's specific goals and language content are carefully balanced throughout the series. They include;

A. PHONOLOGY - Correct pronunciation, aural discrimination, intonations, patterns and appreciation of the language.

B. ORTHOGRAPHY - Letter formation and recognition; punctuation; the importance of dotting, diacritics, nunnation signs; sounds represented by different letters, letter shapes or symbols; sounds not represented in writing; silent letters and symbols.

C. MORPHOLOGY - Associating inflections with grammatical devices; special reading issues, such as hamzatu-l-waSl in some verb forms, sound and broken plurals, dual forms, passive and active verb forms; derivational patterning; structural patterning and analysis; vowel mutations.

D. SYNTAX - Word order, grammar, and their importance to meaning; question/answer patterns; sentence structure.

E. LEXIS - Expanding MSA vocabulary; basic sight reading vocabulary, including function words, expressions, high-frequency words in a child's environment, idioms, word families, root words, synonyms and antonyms; use of reference material.

F. COMPREHENSION - Basic skills required to supply a missing word or letter; sequence scrambled words or sentences; interpret text by paraphrasing; articulate main idea of text; judge the plausibility of a sentence.

The series was produced in late 1986 and early 1987. It began showing in Jordan in May 1987.

1.2. Purposes of the ETS Evaluation

The general purpose of the evaluation was to provide information for decision-makers in a variety of audiences including USAID, the funding agency; the developers and producers of the series in the United States and Jordan; educators interested in the potential of television and the mass media as an aid to learning; Arab educators interested in Modern Standard Arabic; and members of the educational research community. Some information will be more relevant to specific groups. Simple descriptive information will be sufficient for some groups; others will be interested in the technical aspects of the information. We have included both types of information in the body of the report and the appendices.

It was not clear that ETS would be able to conduct the evaluation in the same way that it conducted independent evaluations in the United States. Therefore, one initial purpose of the evaluation study was to undertake a study of the feasibility of conducting the evaluation in a number of Arab countries in the Middle East and North Africa before proceeding. That study was conducted, and the evaluation was judged to be feasible.

The following questions, based on the purposes of the AL MANAAHIL project, were used to guide the design of the evaluation:

1. To what extent was the television series produced and implemented as planned?
2. What was its effect on the children's knowledge of and skill in using Modern Standard Arabic?
3. To what extent was the series viewed by children?
4. Was the series attractive to students?
5. What was its impact on teachers and parents?

In addition to providing answers to these explicit questions, the evaluation was to be attentive to any side effects that might be caused by the series and any negative effects perceived by Arab educators and/or adults.

The evaluation did not include experimental conditions with planned variation in viewing intensity of the programs. Because the series was to be shown on national television, and because the advisory board indicated that the vast majority of children would view the series, the treatment was the exposure of all children in Jordan to the series. This view of the treatment is explained more fully in later sections of the report dealing with the evaluation design.

CHAPTER 2

PREPARATION AND DATA COLLECTION

Before proceeding with the evaluation, ETS was required to conduct a feasibility study to determine if the evaluation could be carried out effectively in Jordan. If the evaluation project was considered feasible, then ETS was to conduct the evaluation between November 1985 and December 1987.

2.1. Feasibility of the Evaluation

A feasibility study was conducted in July and August of 1985. As ETS project director, I visited Jordan, participated in the second CTW workshop in Amman, and explored the feasibility questions with members of the advisory committee. In addition, with assistance from staff of AMIDEAST, I visited the Ministry of Education, the University of Jordan, Yarmouk University, and several primary schools in Amman. The Arab educators I met with were very encouraging. Basically, the discussions were concerned with the following three questions:

(1) Could an adequate design be implemented to guarantee information capable of providing answers to the questions in the evaluation?

(2) Would ETS be able to insure valid and reliable tests to measure the children's language and reading skills?

(3) Would ETS be able to collect valid and reliable data for an evaluation in Jordan and other Arab countries?

These three questions correspond to the three critical elements in any evaluation: (1) evaluation design, (2) instrument development, and (3) data collection.

Evaluation design. The research design issue was an important one. In conducting evaluations, ETS had ordinarily implemented a type of experimental or quasi-experimental design in which some children participated in the program being evaluated and some did not. It was

not clear that such a design could be implemented in this study. However, in discussions with members of the advisory committee, other Arab educators, and CTW researchers, we decided that this issue was not really relevant to working in a foreign country without previous experience. The difficulties involved in designing the research so that valid conclusions could be drawn turned out to be more related to the fact that television is universal in Jordan. Even in refugee settlement areas, television was universal. Therefore, how could the impact of AL MANAAHIL on the reading skills of children be assessed in the absence of a control group of children who did not view the series at the same time that the treatment children did view the series? Acting on the advice of the advisory committee, ETS suggested to CTW and USAID a design in which observed reading skills of children in a sample of schools in 1987 would be compared with the observed reading skills of similar children in the same schools in 1986.

On the whole, the issue of research design was not a prohibitive one. On October 31, 1985, USAID accepted the ETS suggestions and agreed to fund the evaluation. ETS agreed to arrange for testing four distinct samples of children in two separate samples of schools. In one sample of schools, children were to be tested in May 1986 and May 1987. In the other sample of schools, children were to be tested in December 1986 and December 1987. It was anticipated that the 1986 test administrations would take place before the series went on the air; the 1987 test administrations would take place after the series was on the air. The projected date for beginning broadcasting was January 1987.

Instrument development. In the United States, ETS had available many tests of reading skills used in its own projects and those of others, including the evaluations of Sesame Street and The Electric Company. Were such tests available in Jordan and other Arab countries? If not, could they be designed and developed at ETS? Could they be designed and developed by Arab educators in the participating countries? Would there be educators familiar with test

design and construction, with item writing skills? Would ETS be able to collaborate effectively with Arab educators?

As it turned out, instrument development in Jordan appeared to be feasible. More than twenty Jordanian educators had participated in ETS summer training programs in item writing, test analysis, and program evaluation since 1970. The goals and objectives for the project had been favorably reviewed by the advisory committee and were available as a basis for item writing. Members of the advisory committee reviewed a large number of sample test items in English provided by ETS from previous work conducted in the United States. They encouraged ETS to arrange for similar items to be constructed in Arabic. The view of ETS was that this approach would be feasible. USAID accepted that view.

Data Collection. In studies in the United States, permission to gather information in schools is obtained at the state or district level. After clearance is obtained, ETS ordinarily works in a collaborative way with local schools and teachers. It was not clear that such a strategy could be implemented in the Middle East and North Africa.

Data collection was not perceived as a problem by Arab educators. Although we did not decide who would collect the data, nor how it would be collected, every Arab educator interviewed, including the Minister of Education, curriculum experts at the Ministry, principals and teachers at several schools, and administrators at UNRWA headquarters, agreed that schools would gladly cooperate in the research. That proved to be the case.

The feasibility plan was prepared and presented to CTW and USAID. It was discussed at a meeting in Washington on October 31, 1985. USAID staff made suggestions about the test instrument to be used, about strategies for test administration, asked that other countries be involved if at all possible, and directed both CTW and ETS to place

heavier stress on reading comprehension skills in the project and the evaluation. Then, clearance was given to proceed with the evaluation.

Having received USAID acceptance of the ETS plan for the evaluation, I returned to Amman in December 1985 to identify Arab educators to coordinate the activities required to develop the items and tests needed, select the samples, arrange for test administration, collect data, and transmit data to ETS in the United States. At every meeting with educators - those who had participated in the ETS summer programs in Item Response Theory, Test Development, and Program Evaluation; those at the Ministry of Education; and, those at the Universities - an interest in the evaluation was expressed. However, all educators interviewed suggested that the test development and data collection efforts should be directed and coordinated by Dr. Abdallah Kaylani, Dean of the Faculty of Education, University of Jordan.

As a result, I met with Dr. Kaylani and asked him to consider taking responsibility for the instrument development and data collection components of the evaluation. He had taken Fred Lord's course on Item Response Theory at ETS and was interested in collaborating in this project. However, his time was limited. He agreed to discuss the matter with his colleagues. I left Jordan on December 15, 1985 without having negotiated any contracts and with nothing definite in place.

On January 15, 1986, I received a letter from Dr. Muhammad Ibrahim saying that he had met several times with Dr. Kaylani, Dr. Sami Khasawnih, and Dr. Fakhri Tomalia. Dr. Kaylani agreed to take responsibility for test development and production, as well as for coordination of the data collection and training of test administrators. He asked me to return as soon as possible to negotiate the necessary contracts.

2.2. Evaluation Design

In February 1986, I returned to Amman to negotiate a contract with Dr. Abdallah Kaylani to design reading tests and coordinate the data collection in Jordan. I presented in detail what was needed by ETS in order to conduct a valid evaluation.

I had learned during the feasibility study that there were three types of schools in Jordan: Government schools, those administered by the Jordanian government; UNRWA (United Nations Refugee and Warfare Agency) schools for Palestinian children administered by United Nations personnel; and, private schools, those administered by private, primarily religious, organizations. In the 1983-84 school year, there were 1,148 primary schools in Jordan - 82% government schools, 9% UNRWA schools, and 9% private schools. Of the total, 47% were coed, 28% enrolled boys only, and 25% enrolled girls only. Although government and UNRWA schools included large numbers of each type of school, private schools were primarily (96%) coeducational. The majority of schools (78%) and children (84%) were in two areas of the country, Amman and Irbid.

In discussing a design for the May 1986 testing, Dr. Kaylani and I agreed to include schools outside the areas of Amman and Irbid. However, data collection proved to be difficult due to transportation, lodging, and schedules of the test administrators. In the December 1986 test administration, the sample size was reduced and focused in the regions of Amman and Irbid. As the production of the AL MANAAHIL series progressed, the beginning date for broadcast was rescheduled for May 1987. As a result, we did not test the children in May 1987. All results are based on the December 1986 and December 1987 test administrations. The design for the December 1986 test administration is given in Table 2.2.1.

Assuming an average of two classes per grade, this design was intended to result in 10, 20, 10, and 10 classes in Grades 1, 2, 3,

Table 2.2.1

Evaluation Design

Type of School	Students	Grades 1	2	3	4
A. Government					
1. Amman	Boys only	X	X		X
	Girls only	X	X	X	
	Coed		X	X	X
2. Irbid	Boys only		X	X	
	Girls only		X		X
	Coed	X	X		
B. UNRWA	Boys only	X	X		
	Girls only		X	X	
	Coed		X		X
C. Private	Coed	X	X	X	X

and 4 respectively. Assuming an average class size of 20 to 25 children, we expected to test approximately 400 to 500 children in second grade and about half as many in each of the other three grades. If a grade was included in a school, all children in that grade were to be tested.

2.3. Instrument Development

The statement of goals and objectives went through more than five drafts from its inception at a meeting in New York City in June 1985 through its final ratification by the multinational advisory committee in Amman in May 1986. The primary architect was Dr. Muhammad Ibrahim, Director of the Center for Linguistics, University of Jordan. Based on the complex discussions of participants in the early meetings in New York, he fashioned the original draft. Then, as the project progressed and more input was received, he re-drafted the statement. The final draft, Draft 5a, was used as the basis for the production of the programs and of the reading tests used in the evaluation.

During the course of developing the goals, emphasis shifted toward higher order reading skills including comprehension. Key components in the Arab language, such as the centrality of roots in word development and meaning, received greater stress; less critical components, such as phonetics and decoding, received less stress. The final document ratified by the advisory committee is a relatively long document with rationales for including certain components, background notes, goals related to Arabic culture and tradition, strategies for the production team relevant to specific goals and objectives, and examples to illustrate specific goals and objectives. A complete copy of the language-specific goals of the project is given in Appendix A. ETS used the goals and objectives statement to develop a corresponding set of objectives for a reading test in Modern Standard Arabic.

During the feasibility study, ETS was not able to locate any appropriate tests of Arabic reading skills. In addition, expertise for developing such tests did not exist within ETS. Therefore, the decision was made early in the project that the tests would be totally designed and developed in the Arab countries involved in the project.

Dr. Kaylani agreed to design two tests, each approximately 100 items long, with 25 common items in both tests, and to chair a test development committee to write the required 175 items following specifications and guidelines provided by ETS. Once the tests were developed, they were to be printed in Jordan - approximately 4,000 copies. Dr. Kaylani also agreed to write administration manuals for administering the tests and train the test administrators. He agreed to coordinate the selection of schools, the data collection, and the recording and transferring of student data to ETS in the United States.

We estimated costs for the effort, and ETS agreed to wire funds to Dr. Kaylani on March 1, April 1, and May 1 to cover expenses. During the project, two additional contracts were negotiated - one in October 1986 for the December 1986 testing, and one in October 1987 for the December 1987 testing.

Dr. Kaylani had agreed to chair the test development committee provided Dr. Muhammad Ibrahim, Chief Academic Advisor, agreed to work on the committee with him. Dr. Ibrahim agreed to do so and suggested that Dr. Fakhri Tomalia, Dean of Students, Amman Technical Institute, and a member of the CTW advisory committee join the committee. Subsequently, Dr. Sami Khasawnih, Chairman, Department of Educational Administration at the University of Jordan, and Mustafa Kaylani, an experienced primary school reading teacher, joined the committee. Dr. Abdallah Kaylani and Dr. Sami Khasawnih had attended the ETS summer programs in test theory and were familiar with ETS guidelines for item writing. The ETS project director provided copies of reading test

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items in English used in a number of previous ETS evaluation projects to illustrate a range of item types and formats.

The committee began work in February and worked intensively through April 1986. Copies of completed items were forwarded to ETS for review. Weekly phone calls confirmed that the tests were likely to be ready in time for testing in early May 1986. The committee wrote more than 200 items covering the goals and objectives in the CTW statement given in Appendix A. Dr. Kaylani provided, in English, the excellent descriptions of test items given in Appendix B.

The items were distributed into two tests with 25 common items:

(1) Level A appropriate for Grades 1 and 2; and,

(2) Level B appropriate for Grades 3 and 4.

In April 1986, I returned to Amman and reviewed all items with Dr. Kaylani. The tests were printed in Jordan and, in May 1986, administered to a sample of approximately 3,000 children in Grades 1 through 4 in 22 schools throughout Jordan. In early May 1986, I observed two test administrations, one in Grade 1 and one in Grade 2. Dr. Kieth Mielke, CTW Vice President for Research, observed the Grade 1 test administration with me. The test administrations proceeded as planned.

Detailed item analyses and test analyses were conducted on the May 1986 data. In general, the analyses indicated that the tests were valid for the evaluation and reliable in the samples of children tested. However, there were a number of items (approximately 25) that needed revision based on the item analyses. In addition, many items in the Level A test were very difficult for Grade 1 and 2 children. On the other hand, some items in the Level B test were easy for Grade 3 and 4 children and appeared to be more suitable for the Level A test. Dr. Abdallah Kaylani and the ETS project director decided to revise the tests and create a battery of eight subtests for the December 1986 testing. A description of the final AL MANAAHIL test

battery is given in Table 2.3.1. Note that all children were to take Subtests 3 and 4 - the Core Test administered across all grades in the evaluation.

2.4. Data Collection

In May 1986, the basic design was implemented as planned. More than 1,300 children in 49 second grade classes in 22 schools were tested. In Grades 1, 3, and 4, more than 1,500 children were tested in 18, 16, and 21 classes respectively. The data collection proved to be difficult and costly due to transportation, lodging, and scheduling for test administrators - especially in areas outside of Amman and Irbid. In the December 1986 test administration, the sample size was reduced and resources were focused in the regions of Amman and Irbid.

As explained in Section 2.3, Instrument Development, the May 1986 test data were used to validate and revise the tests for the December 1986 test administration. After the tests were revised, samples of approximately 1,200 children in 13 schools were tested in December 1986 and December 1987. Because the series began broadcasting in May 1987, children were not tested at that point, and the May 1986 data were not used as a baseline point in the evaluation.

Summaries of the numbers of children tested in December 1986 and December 1987 are given in Tables 2.4.1 and 2.4.2. The design was basically implemented as planned. Note that in some schools, children were tested in both 1986 and 1987. For example, School 1 included children in Grades 1 and 2 in both years. The children in Grade 1 in 1986 moved into (by and large) Grade 2 in 1987. We examined these data for possible analysis across years for the same students using a measure of viewing based on the children's responses to a question about their viewing in 1987. This exploration proved fruitless. Although a sizeable number (approximately 200) of the children were matched across the two years, the number of children in any one grade who did not view the series was very small.

Table 2.3.1

Description of the AL MANAAHIL Arabic Reading Test

SUBTEST	ITEMS	N	GRADE 1	GRADE 2	GRADE 3	GRADE 4
1	1 - 20	20	X			
2	21 - 40	20	X	X		
3	41 - 65	25	X	X	X	X
4	66 - 80	15	X	X	X	X
5	81 - 100	20		X	X	X
6	101 - 120	20		X	X	X
7	121 - 140	20			X	X
8	141 - 160	20				X
TOTAL NUMBER OF ITEMS		160	80	100	100	120

Table 2.4.1

Number of Children by School, Grade, and Class
Jordan - December 1986

School	Region	Type	Students	Grade	Class 1	Class 2	Class 3
1	Amman	Govt.	Male	1	22	17	--
				2	24	29	--
				4	26	20	--
2	Amman	Govt.	Female	2	24	24	--
				3	25	22	--
3	Amman	Govt.	Female	1	19	20	--
4	Amman	Govt.	Coed	2	19	44	33
				3	33	22	--
				4	42	35	--
5	Irbid	Govt.	Male	2	28	26	--
				3	24	24	--
6	Irbid	Govt.	Female	2	27	27	--
				4	22	--	--
7	Irbid	Govt.	Female	4	34	--	--
8	Irbid	Govt.	Coed	1	14	13	--
				2	14	15	--
9	Amman	UNRWA	Female	2	41	43	--
				3	30	30	--
10	Amman	UNRWA	Male	1	51	46	--
				2	46	46	--
11	Amman	UNRWA	Coed	2	28	32	--
				4	50	49	--
12	Amman	Private	Coed	1	19	21	--
				2	18	23	--
				3	18	20	--
13	Amman	Private	Coed	4	22	23	--

Table 2.4.2

Number of Children by School, Grade, and Class
Jordan - December 1987

School	Region	Type	Students	Grade	Class 1	2	3
1	Amman	Govt.	Coed	1	15	16	--
				2	26	25	--
				4	20	20	--
2	Amman	Govt.	Coed	2	29	26	--
				3	28	28	--
3	Amman	Govt.	Female	2	24	--	--
4	Amman	Govt.	Coed	1	24	--	--
				2	25	25	--
				3	23	19	--
				4	27	--	--
5	Irbid	Govt.	Male	2	28	26	--
				3	22	24	--
6	Irbid	Govt.	Female	2	17	18	--
				4	21	21	--
7	Irbid	Govt.	Female	4	30	--	--
8	Irbid	Govt.	Coed	1	16	16	--
				2	15	14	--
9	Amman	UNRWA	Female	2	34	35	--
				3	35	34	--
10	Amman	UNRWA	Male	1	35	36	--
				2	34	38	--
11	Amman	UNRWA	Coed	2	35	32	--
				4	35	37	--
12	Amman	Private	Coed	1	23	18	--
				2	28	31	--
				3	19	--	--
				4	25	--	--
13	Amman	Private	Coed	2	36	--	--
				4	26	26	--

In 1986, we anticipated that several other Arab countries might broadcast the television series during 1987. Two of the members of the CTW advisory committee, Dr. Abdelkader Ezzaki, Associate Professor of Education, University of Mohammed V, Rabat, Morocco, and Dr. Mohammed Maamouri, Director of the Bourgiba Institute of Languages, Tunis, Tunisia agreed to coordinate the testing of small samples of children in their countries. That testing was carried out in January 1987 (See Tables 2.4.3 and 2.4.4). Although it is likely that Morocco and Tunisia will eventually broadcast the series, they did not do so in 1987. As a result, no further testing was conducted in those countries.

In Jordan, approximately 100 adults in local literacy programs in Amman were tested in December 1986 (Table 2.4.5). We had hoped to locate some of the same adults, or groups of similar adults, in 1987. We also anticipated that we might be able to implement a small study using videotapes of the television series with the same adults over time. Although we did test an additional group of adults in 1987 (Table 2.4.6), our expectations were not realized and we did not compare the two groups.

Data collection was directed by Dr. Anmar Kaylani. Test administrators included 7 faculty members and 8 graduate students in the University of Jordan. Dr. Abdallah Kaylani conducted the training.

In May 1986, the test administrators worked in pairs, one member of the team reading the instructions to the children while the other circulated around the room making sure that the children were following the instructions. This strategy worked very well in May 1986 and was repeated in December 1986 and December 1987.

After the test administrators completed the test administration, they recorded the student responses on special computer layout sheets

Table 2.4.3

Number of Children by School, Grade, and Class
Morocco - January 1987

School	Region	Type	Students	Grade	Class 1	2	3
1	Rabat	Govt.	Male	1	29	28	--
				2	27	31	33
				3	37	35	--
				4	26	27	21
2	Rabat	Govt.	Coed	1	26	31	25
				2	34	22	32
				3	31	--	--

Table 2.4.4

Number of Children by School, Grade, and Class
Tunisia - January 1987

School	Region	Type	Students	Grade	Class 1	2	3	4	5
1	Tunis	Govt.	Coed	1	32	--	--	--	--
				2	29	30	29	33	30
				3	32	31	--	--	--
				4	38	35	--	--	--
2	Tunis	Private	Coed	1	37	--	--	--	--
				2	39	36	38	--	--

Table 2.4.5

Number of Adults in Literacy Programs by School and Grade
Jordan - December 1986

School	Students	Grade	No. of Adults
1	Female	1	12
		3	24
2	Male	1	12
3	Male	2	25
4	Female	2	16
5	Female	4	8
6	Male	3	5
		4	5

Table 2.4.6

Number of Adults in Literacy Programs by School and Grade
Jordan - December 1987

School	Students	Grade	No. of Adults
1	Male	1	7
2	Male	3	11
3	Female	3	18
4	Female	3	12
5	Male	1	7
		3	4
6	Female	1	8
		3	13
7	Female	4	6

for transmittal to ETS for keypunching. The data were very complete. Because children were paced through the tests, most completed all questions. In addition, the test administrators provided dates of birth for almost all children.

Summary test statistics are given in Tables 2.4.7 and 2.4.8 for the December 1986 and December 1987 test administrations in Jordan. Similar data are given for the Morocco (Table 2.4.9) and Tunisia (Table 2.4.10) data to support the conclusion that the test is appropriate for North Africa as well as the Middle East as intended.

In the first section of Table 2.4.7, for each Grade Level Test, we list the reliability coefficient (REL.), the standard error of measurement (S.E.M.), the number of pupils tested, the number of items in the test, the mean score, and the standard deviation (S.D.) of the scores. For example, in Grade 2, the reliability of the test was .94; the standard error of measurement was 4.2; 610 children were tested; the test contained 100 items; the mean score was 47.8 items correct; and, the standard deviation of the scores was 17.6. These results are reasonable for this kind of test.

On the Core Test, in December 1986, the reliabilities are smaller than those on the Grade Level Tests. However, given that the number of items is less than on the Grade Level Tests (40 items), the results are good. The subtests have fewer items (15, 20, or 25), but the sample sizes are larger for the most part. The results for Jordan in December 1987, and for Morocco and Tunisia in January 1987, are similar. In general, the results indicate that the tests are reliable and are valid for the purposes of the evaluation. Tables giving other types of technical data (subtest correlations, r-biserials, and delta coefficients) are given in Appendix C.

Table 2.4.7

Summary Test Statistics

Jordan - December 1986

TEST	REL.	S.E.M.	NO. PUPILS	NO. ITEMS	MEAN	S.D.
GRADE 1 TEST	0.90	3.8	240	80	25.1	11.8
GRADE 2 TEST	0.94	4.2	610	100	47.8	17.6
GRADE 3 TEST	0.94	4.1	245	100	60.9	16.6
GRADE 4 TEST	0.95	4.5	320	120	74.2	19.9
CORE TEST (G1)	0.82	2.6	240	40	11.9	6.1
CORE TEST (G2)	0.87	2.6	610	40	21.6	7.3
CORE TEST (G3)	0.85	2.4	245	40	28.3	6.0
CORE TEST (G4)	0.86	2.4	320	40	29.1	6.3
SUBTEST 1	0.72	1.9	240	20	6.8	3.6
SUBTEST 2	0.84	1.9	850	20	10.2	4.7
SUBTEST 3	0.87	2.0	1420	25	14.9	5.6
SUBTEST 4	0.82	1.6	1420	15	7.9	3.8
SUBTEST 5	0.82	1.9	1175	20	9.7	4.5
SUBTEST 6	0.89	1.8	1170	20	9.5	5.6
SUBTEST 7	0.73	2.0	565	20	10.5	3.8
SUBTEST 8	0.70	2.0	320	20	8.7	3.7

Table 2.4.8

Summary Test Statistics

Jordan - December 1987

TEST	REL.	S.E.M.	NO. PUPILS	NO. ITEMS	MEAN	S.D.
GRADE 1 TEST	0.86	4.0	195	80	31.1	10.6
GRADE 2 TEST	0.91	4.3	570	100	54.5	14.9
GRADE 3 TEST	0.94	4.1	230	100	66.9	16.6
GRADE 4 TEST	0.95	4.3	285	120	83.5	19.8
CORE TEST (G1)	0.76	2.7	195	40	15.0	5.6
CORE TEST (G2)	0.85	2.6	570	40	24.0	6.8
CORE TEST (G3)	0.87	2.4	230	40	29.2	6.6
CORE TEST (G4)	0.88	2.1	285	40	32.6	6.2
SUBTEST 1	0.70	1.9	195	20	8.3	3.6
SUBTEST 2	0.79	1.9	765	20	11.9	4.2
SUBTEST 3	0.88	1.9	1285	25	16.4	5.5
SUBTEST 4	0.79	1.6	1285	15	9.0	3.5
SUBTEST 5	0.80	2.0	1090	20	11.1	4.4
SUBTEST 6	0.88	1.9	1090	20	11.1	5.3
SUBTEST 7	0.77	1.9	520	20	12.2	4.0
SUBTEST 8	0.73	2.0	285	20	9.5	3.9

Table 2.4.9

Summary Test Statistics

Morocco - January 1987

TEST	REL.	S.E.M.	NO. PUPILS	NO. ITEMS	MEAN	S.D.
GRADE 1 TEST	0.93	3.8	135	80	39.3	14.4
GRADE 2 TEST	0.93	4.0	175	100	64.5	15.0
GRADE 3 TEST	0.90	3.9	105	100	68.2	12.5
GRADE 4 TEST	0.86	4.4	70	120	75.7	11.7
CORE TEST (G1)	0.86	2.6	135	40	17.6	7.1
CORE TEST (G2)	0.82	2.4	175	40	26.2	5.8
CORE TEST (G3)	0.78	2.4	105	40	28.5	5.2
CORE TEST (G4)	0.57	2.3	70	40	30.0	3.6
SUBTEST 1	0.79	1.9	135	20	10.7	4.1
SUBTEST 2	0.85	1.8	310	20	13.4	4.5
SUBTEST 3	0.85	1.9	490	25	16.9	4.9
SUBTEST 4	0.74	1.6	490	15	8.0	3.2
SUBTEST 5	0.69	1.9	355	20	12.2	3.4
SUBTEST 6	0.81	1.8	355	20	13.1	4.2
SUBTEST 7	0.58	1.9	175	20	11.3	3.0
SUBTEST 8	0.50	1.9	70	20	7.9	2.7

Table 2.4.10

Summary Test Statistics

Tunisia - January 1987

TEST	REL.	S.E.M.	NO. PUPILS	NO. ITEMS	MEAN	S.D.
GRADE 1 TEST	0.94	3.6	65	80	33.6	14.5
GRADE 2 TEST	0.93	4.2	260	100	51.4	16.1
GRADE 3 TEST	0.92	4.1	60	100	54.9	14.4
GRADE 4 TEST	0.89	4.0	70	120	82.0	12.1
CORE TEST (G1)	0.89	2.3	65	40	13.0	7.2
CORE TEST (G2)	0.88	2.5	260	40	22.3	7.2
CORE TEST (G3)	0.83	2.4	60	40	25.3	5.8
CORE TEST (G4)	0.64	1.8	70	40	32.4	3.1
SUBTEST 1	0.79	1.9	65	20	10.7	4.0
SUBTEST 2	0.77	1.9	330	20	11.5	4.0
SUBTEST 3	0.88	1.9	465	25	16.2	5.4
SUBTEST 4	0.75	1.5	430	15	7.3	3.1
SUBTEST 5	0.76	2.0	395	20	9.8	4.0
SUBTEST 6	0.84	1.9	395	20	10.3	4.8
SUBTEST 7	0.68	1.9	135	20	10.3	3.5
SUBTEST 8	0.62	1.9	70	20	8.2	3.1

CHAPTER 3

RESULTS AND INTERPRETATION

Results reported in this chapter are based on data collected in Jordan in December 1986 and December 1987. Approximately 1,300 children in 13 schools and 100 adults in 6 literacy training classes were tested each year. In 1987, both groups responded to questions about AL MANAAHIL. In addition, approximately five hundred teachers, parents, and other adults, in two separate surveys, responded to questions about their familiarity with, exposure to, and perceptions of AL MANAAHIL.

3.1 Impact on Student Achievement

Children's performance on Arabic reading tests provided the most conclusive evidence about the impact of AL MANAAHIL on children's reading skills. Teachers, parents, and other adults, in responding to questionnaires administered in the evaluation, provided additional evidence about the impact of AL MANAAHIL on the reading skills of Arab children.

The reading tests used to assess reading skills and knowledge of MSA were described in Chapter 2. Briefly, 160 reading items were developed and grouped into 8 subtests, a core test containing subtests 3 and 4, and four grade specific tests containing combinations of 4, 5, or 6 subtests appropriate for the grade being tested. The results of the test administrations in December 1986 and December 1987 are presented in three summary tables:

(1) Table 3.1.1: Grade Level Test Results by School and Grade;

(2) Table 3.1.2: Core Test Results by School and Grade; and

(3) Table 3.1.3: Subtest Results by Grade.

Table 3.1.1

Grade Level Test Results by School and Grade

		DECEMBER 1986			DECEMBER 1987						
GRADE	SCHOOL	NUMBER	MEAN	S.D.	NUMBER	MEAN	S.D.	87-86	T-VALUE	P-VALUE	SIGNIF
1	I	40	19.05	7.31	41	34.20	13.09	15.15	6.41	0.00	+++
	C	39	22.82	6.09	31	24.29	5.82	1.47	1.02	0.31	NS
	G	27	26.93	11.99	32	31.13	8.86	4.20	1.54	0.13	NS
	A	97	29.70	14.67	71	35.80	8.57	6.10	3.13	0.00	+++
	TOTAL	203	25.91	12.50	175	32.53	10.31	6.62	5.56	0.00	+++
2	A	92	38.34	18.06	72	52.54	13.08	14.20	5.62	0.00	+++
	B	48	38.46	11.90	55	52.31	13.02	13.85	5.60	0.00	+++
	C	53	41.21	12.01	51	42.22	15.73	1.01	0.37	0.71	NS
	D	54	44.72	15.30	35	45.74	9.03	1.02	0.36	0.72	NS
	E	54	46.31	14.24	54	55.89	14.88	9.58	3.44	0.00	+++
	F	96	48.14	22.48	50	58.82	12.84	10.68	3.10	0.00	+++
	G	29	49.17	10.65	29	55.55	11.28	6.38	2.21	0.03	++
	H	60	51.35	11.95	67	46.72	11.99	-4.63	-2.18	0.03	--
	I	41	52.22	15.86	28	62.36	13.96	10.14	2.73	0.01	+++
	J	84	64.57	12.47	69	67.71	9.93	3.14	1.70	0.09	NS
	TOTAL	611	47.73	17.66	510	53.98	14.75	6.25	6.35	0.00	+++
3	E	48	49.81	12.90	46	59.76	18.23	9.95	3.06	0.00	+++
	B	47	51.70	14.95	56	64.73	15.07	13.03	4.39	0.00	+++
	I	38	59.89	17.18	19	69.58	19.02	9.69	1.94	0.06	NS
	F	55	68.13	17.02	42	68.43	20.59	0.30	0.08	0.94	NS
	J	60	70.30	10.40	69	72.14	10.80	1.84	0.98	0.33	NS
	TOTAL	248	60.73	16.73	232	67.02	16.65	6.29	4.12	0.00	+++
4	K	34	66.79	19.56	30	97.20	12.51	30.41	7.29	0.00	+++
	H	99	67.10	21.27	72	74.99	16.24	7.89	2.64	0.01	+++
	C	46	69.61	15.36	40	63.68	22.19	-5.93	-1.46	0.15	NS
	F	77	80.35	17.83	27	95.81	15.88	15.46	3.98	0.00	+++
	L	45	82.31	14.44	52	85.12	17.15	2.81	0.86	0.39	NS
	D	22	87.59	19.57	42	96.36	8.68	8.77	2.49	0.02	++
	TOTAL	323	74.10	19.83	263	83.35	20.00	9.25	5.60	0.00	+++

+++/--- significant at .01 level
++/-- significant at .05 level
NS not significant (p>.05)

Table 3.1.2

Core Test Results by School and Grade

GRADE	SCHOOL	DECEMBER 1986 NUMBER	DECEMBER 1986 MEAN	DECEMBER 1986 S.D.	DECEMBER 1987 NUMBER	DECEMBER 1987 MEAN	DECEMBER 1987 S.D.	87-86	T-VALUE	P-VALUE	SIGNIF
1	I	40	8.58	4.14	41	16.46	7.17	7.88	6.04	0.00	+++
	C	39	9.87	3.60	31	11.52	4.01	1.65	1.81	0.08	NS
	G	27	12.59	6.27	32	14.88	5.74	2.29	1.46	0.15	NS
	A	97	14.54	7.34	71	16.61	4.91	2.07	2.06	0.04	++
	TOTAL	203	12.21	6.53	175	15.35	5.81	3.14	4.91	0.00	+++
2	A	92	18.78	8.21	72	23.43	5.70	4.65	4.09	0.00	+++
	B	48	17.19	6.75	55	24.91	5.78	7.72	6.25	0.00	+++
	C	53	19.98	6.00	51	17.47	6.87	-2.51	-1.99	0.05	--
	D	54	18.98	6.33	35	18.26	4.91	-0.72	-0.57	0.57	NS
	E	54	20.17	7.09	54	24.85	6.24	4.68	3.65	0.00	+++
	F	96	21.58	8.33	50	25.94	4.81	4.36	3.41	0.00	+++
	G	29	23.24	5.77	29	23.79	5.89	0.55	0.36	0.72	NS
	H	60	23.97	4.00	67	20.97	6.49	-3.00	-3.09	0.00	---
	I	41	24.41	6.98	28	28.11	5.96	3.70	2.29	0.03	++
	J	84	27.23	4.97	69	28.10	4.32	0.87	1.15	0.25	NS
	TOTAL	611	21.60	7.36	510	23.62	6.62	2.02	4.79	0.00	+++
3	E	48	25.13	4.73	46	24.54	7.93	-0.59	-0.43	0.67	NS
	B	47	24.79	5.26	56	28.11	4.77	3.32	3.36	0.00	+++
	I	38	28.58	6.84	19	32.21	6.70	3.63	1.90	0.06	NS
	F	55	30.04	6.63	42	31.02	7.48	0.98	0.69	0.49	NS
	J	60	31.57	4.31	69	31.41	4.37	-0.16	-0.21	0.83	NS
	TOTAL	248	28.24	6.17	232	29.25	6.64	1.01	1.72	0.09	NS
4	K	34	26.65	6.07	30	34.77	4.36	8.12	6.08	0.00	+++
	H	99	27.35	7.35	72	30.46	5.31	3.11	3.05	0.00	+++
	C	46	28.41	5.70	40	27.63	8.47	-0.78	-0.51	0.61	NS
	F	77	30.23	5.92	27	35.00	5.23	4.77	3.70	0.00	+++
	L	45	32.09	3.19	52	33.12	4.71	1.03	1.24	0.22	NS
	D	22	31.73	4.36	42	37.14	2.20	5.41	6.63	0.00	+++
	TOTAL	323	29.07	6.27	263	32.58	6.14	3.51	6.79	0.00	+++

+++/--- significant at .01 level
++/-- significant at .05 level
NS not significant (p>.05)

Table 3.1.3

Subtest Results by Grade

GRADE	SUBTEST	DECEMBER 1986 NUMBER	DECEMBER 1986 MEAN	DECEMBER 1986 S.D.	DECEMBER 1987 NUMBER	DECEMBER 1987 MEAN	DECEMBER 1987 S.D.	87-86	T-VALUE	P-VALUE	SIGNIF
1	1	203	6.95	3.77	175	8.72	3.49	1.77	4.72	0.00	+++
	2	203	6.76	3.70	175	8.46	2.76	1.70	4.99	0.00	+++
	3	203	8.47	4.31	175	10.18	4.23	1.71	3.88	0.00	+++
	4	203	3.73	2.77	175	5.17	2.48	1.44	5.28	0.00	+++
2	2	611	11.69	4.25	510	13.22	3.48	1.53	6.48	0.00	+++
	3	611	14.16	4.77	510	15.40	4.50	1.24	4.44	0.00	+++
	4	611	7.44	3.28	510	8.22	2.88	0.78	4.19	0.00	+++
	5	611	7.84	4.05	510	8.97	3.40	1.13	5.00	0.00	+++
	6	611	6.60	4.65	510	8.17	4.41	1.57	5.78	0.00	+++
3	3	248	18.14	4.01	232	18.61	4.40	0.47	1.22	0.23	NS
	4	248	10.10	2.84	232	10.64	2.74	0.54	2.12	0.03	NS
	5	247	11.53	4.35	232	12.76	4.06	1.25	3.21	0.00	+++
	6	247	11.62	4.83	232	13.25	4.45	1.63	3.86	0.00	+++
	7	247	9.49	3.54	232	11.75	4.06	2.26	6.53	0.00	+++
4	3	323	18.55	4.31	263	20.92	3.84	2.37	7.95	0.00	+++
	4	323	10.53	2.65	263	11.66	2.84	1.13	4.99	0.00	+++
	5	323	11.92	4.11	263	13.84	4.24	1.92	5.55	0.00	+++
	6	323	13.27	4.75	263	14.87	4.52	1.60	4.15	0.00	+++
	7	323	11.20	3.96	263	12.56	3.83	1.36	4.20	0.00	+++
	8	323	8.64	3.75	263	9.51	3.94	0.87	2.72	0.01	++

+++/--- significant at .01 level
++/-- significant at .05 level
NS not significant (p>.05)

In Column 2 of Tables 3.1.1 and 3.1.2, each school is identified by a letter. Because Grade 2 was the major focus of the study, letters were assigned in order of the school's average (Mean) score on the Grade 2 test in 1986. School A had the lowest score on the Grade 2 test, School J the highest. The same letters were used to identify the school if it participated in Grades 1, 3, or 4. Two schools participated only in Grade 4, School K and School L. One school did not test children in the same grade in 1986 and 1987 and was therefore not included in this component of the evaluation. After the schools within a grade were listed, TOTAL was used to indicate all children in that grade. For example, in Grade 1, four schools participated in 1986 with a total of 203 children.

Although each table is discussed in detail in this chapter of the report, the overall results for each can be summarized briefly as follows:

(1) Results on the Grade Level Tests (Table 3.1.1) show that AL MANAAHIL had a significant positive impact on Arab children's reading skills in each of the four grades studied.

(2) Results on the Core Test (Table 3.1.2) reinforce the conclusion that AL MANAAHIL had a positive impact and provide useful information on student growth across Grades 1 through 4.

(3) Results on the 8 Subtests (Table 3.1.3) indicate that the conclusion of a positive impact is valid across a wide range of goals and objectives of the series.

Because the formats of the tables are similar, we give a description of each column label on the next page for Tables 3.1.1, 3.1.2, and 3.1.3. In the sections following, we present a detailed discussion of the information contained in each table.

Description of labels used in Tables 3.1.1 through 3.1.3

Column	Label	Description
1	GRADE	- Children in Grades 1, 2, 3, and 4 were tested.
2	SCHOOL	- Twelve schools (A through L) participated.
3	NUMBER	- Number of children in grade/school in 1986.
4	MEAN	- Average score on the Grade Level Test in 1986.
5	S.D.	- Standard deviation of children's scores in 1986.
6	NUMBER	- Number of children in grade/school in 1987.
7	MEAN	- Average score on the Grade Level Test in 1987.
8	S.D.	- Standard deviation of children's scores in 1987.
9	87-86	- Average in 1987 minus Average in 1986.
10	T-VALUE	- A standardized measure of the 87-86 difference based on the sizes of the samples and the standard deviations of the scores.
11	P-VALUE	- Probability of getting a T-VALUE as high as that given in column 10 by chance.
12	SIGNIF	- Significance of the difference using conventions based on P-VALUES less than .05 or .01.

NOTES: +++/--- the difference 87-86 is significant beyond a .01 level of significance.

++/-- the difference 87-86 is significant beyond a .05 level of significance.

NS the difference 87-86 is not significant beyond a .05 level of significance.

Grade Level Tests. In Table 3.1.1, there are twenty-five grade by school comparisons - four in Grade 1, ten in Grade 2, five in Grade 3, and six in Grade 4. In column 9, the difference 87-86 is positive in 23 of the 25 comparisons. If the children in the schools were similar in 1986 and 1987, we would expect about half the scores to go up a little and half to go down a little. Therefore, we expect about 50% of the differences 87-86 to be positive. The fact that 23 of 25, or 92%, of the differences are positive is an indication that something happened across the schools to improve the children's reading skills. Most of the differences are statistically significant given the sample sizes and standard deviations of the scores.

AL MANAAHIL was seen by the vast majority of these children. Its goals and objectives were to improve the reading skills of the children in areas corresponding to the Grade Level Tests. Therefore, one explanation for the increase in test scores is that Arab children learned some of the material from watching the television programs, that some of the teachers incorporated some of the material from the television series into their instruction, and that some of the parents helped the children to understand better some of the material presented in the AL MANAAHIL programs.

Although we cannot prove that the increase in test scores was due to AL MANAAHIL, we can consider and eliminate some alternative suggestions for the increase. Could familiarity with the tests account for the increase in scores? Actually, only a small percentage (less than 20%) of the children participated in both years. In 1987, they were in a different grade than they were in in 1986, and they responded to a different grade specific test. There were some items common to all tests, but the numbers of items and children in any one grade was small. A review of the Grade 2 scores on the Core Test in 1987 for the four schools in the 1986 Grade 1 sample does not appear to indicate a systematic advantage.

At the aggregate level, the results are positive and highly significant in each of the grades in the study. Of course, the significance is related to the sizes of the samples. In larger samples, smaller differences will be statistically significant. A common way of judging the substantive nature of the difference is to compare it to the standard deviations of the scores in the samples. The differences in this study, about one-third to one-half of the standard deviations of the sample scores, are fairly large and more than adequate evidence of a positive effect. The results are presented graphically in Figures 1 and 2.

In Figure 1, the white bars correspond to the average test scores in 1986 (i.e., Grade 1: 25.9; Grade 2: 47.7; Grade 3: 60.7; and Grade 4: 74.1). The black bars correspond to the average test scores in 1987 (i.e., Grade 1: 32.5; Grade 2: 54.0; Grade 3: 67.0; and Grade 4: 83.4). In all four grades, the children in 1987 scored higher than those in 1986. In Grades 1, 2, and 3, the 1987 group scored approximately 6 units higher than the 1986 group. In Grade 4, the 1987 group scored about 9 units higher than the 1986 group. The differences are highly significant in every grade.

In Figure 2, the white bars correspond to average scores for children in specific grades within schools in 1986. The black bars correspond to average scores for children in the same grades and schools in 1987. Two of the groups in 1987 scored lower than the corresponding groups in 1986 - those in Grade 2 in School H and those in Grade 4 in School C. These results show that the increases in reading performance summarized at the grade levels in Graph 1 were widespread across different types of schools. Once again, it is important to note that the comparison is between children in the same grade over a one year period. That is, in the same schools, children in Grade 2 in 1987, after AL MANAAHIL was on television, scored significantly higher than children in Grade 2 in 1986, before AL MANAAHIL was shown on television.

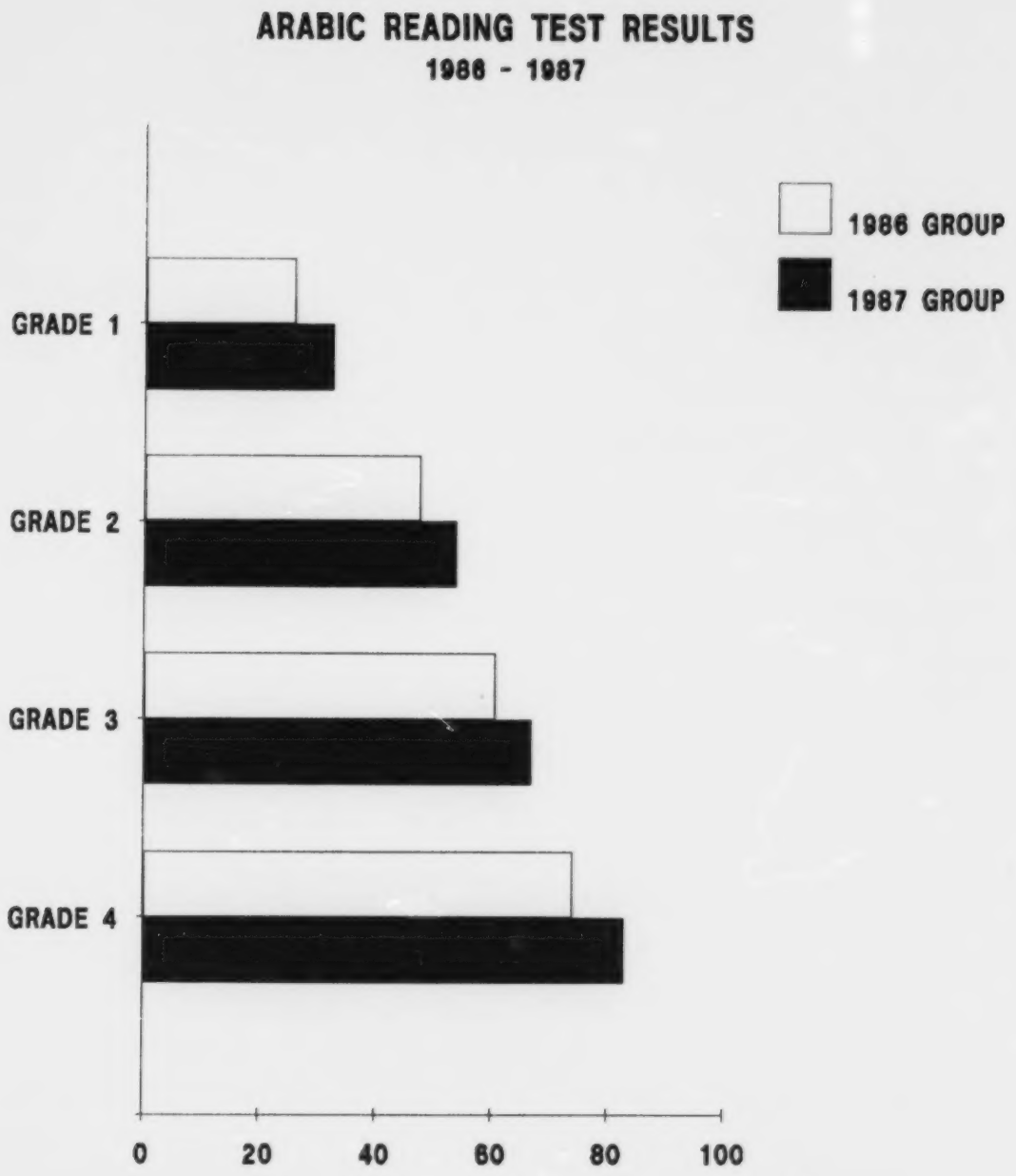

FIGURE 1: Comparison of Grade Level Scores by Grade

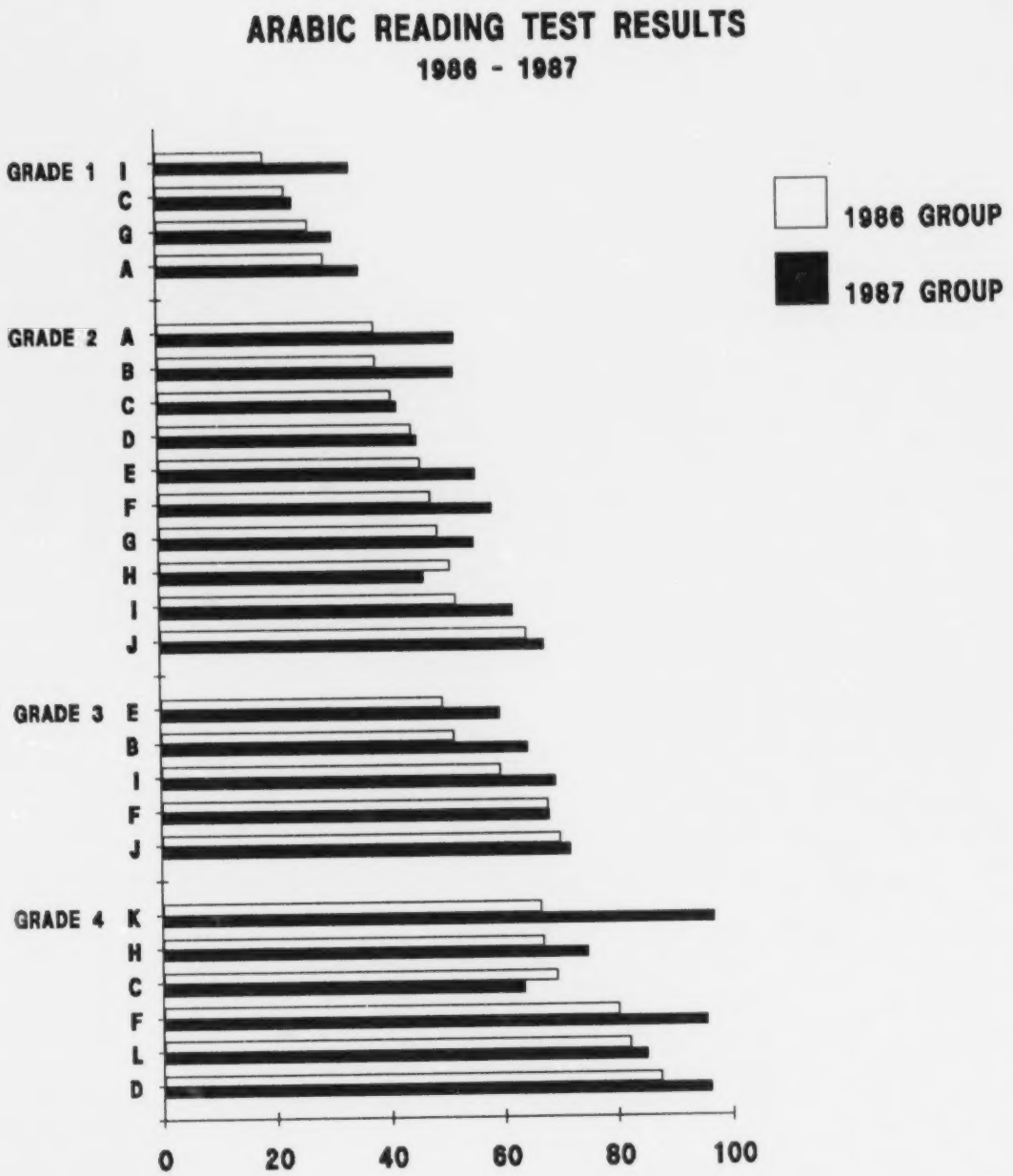

FIGURE 2: Comparison of Grade Level Scores by School

Core Test. In Table 3.1.2, we present the results on the Core Test, a 40 item test taken by all students. One value of the Core Test is that it allows us to examine achievement across grades. For example, the mean scores of children in Grades 1, 2, 3, and 4 in 1986 were 12.2, 21.6, 28.2, and 29.1. This test was appropriate for Grade 2 children, difficult for Grade 1 children, and relatively easy for children in Grades 3 and 4. The results show evidence of growth across the grades. They support the assertions that AL MANAAHIL is most relevant to the Grade 2 curriculum; that it makes sense for children in Grades 1, 3, and 4; and, that it supplements learning already taking place.

Of 25 school differences (87-86) in column 9, 19 were positive. We expected to find fewer significant differences in Grades 3 and 4 because of a tendency toward a ceiling effect on the test. However, the results in Grade 4 are very positive. An interesting line of research would be to examine whether the increase in scores is due to performance on special items. The results are presented graphically in Figures 3 and 4.

Subtests. In Table 3.1.3, we present the results on each subtest by grade combination. These results are interesting because they show clearly that performance on each subtest increases as the children move from Grade 1 to Grade 4. The increases across Grades 1 through 4 provide guides for interpreting the increases within grades between 1986 and 1987. Although differences (87-86) in column 9 are small, they are positive in all cases. By and large, the results are highly significant. The results are presented graphically in Figure 5.

Sex differences. Thus far, results indicate that AL MANAAHIL's positive impact is verified across schools, grades, and curriculum areas. We also examined the results by sex of the students. In Table 3.1.4, we present the results by sex within school and grade. Note that some schools were single sex schools. Although we expected this analysis to provide only a further indication that the positive effect

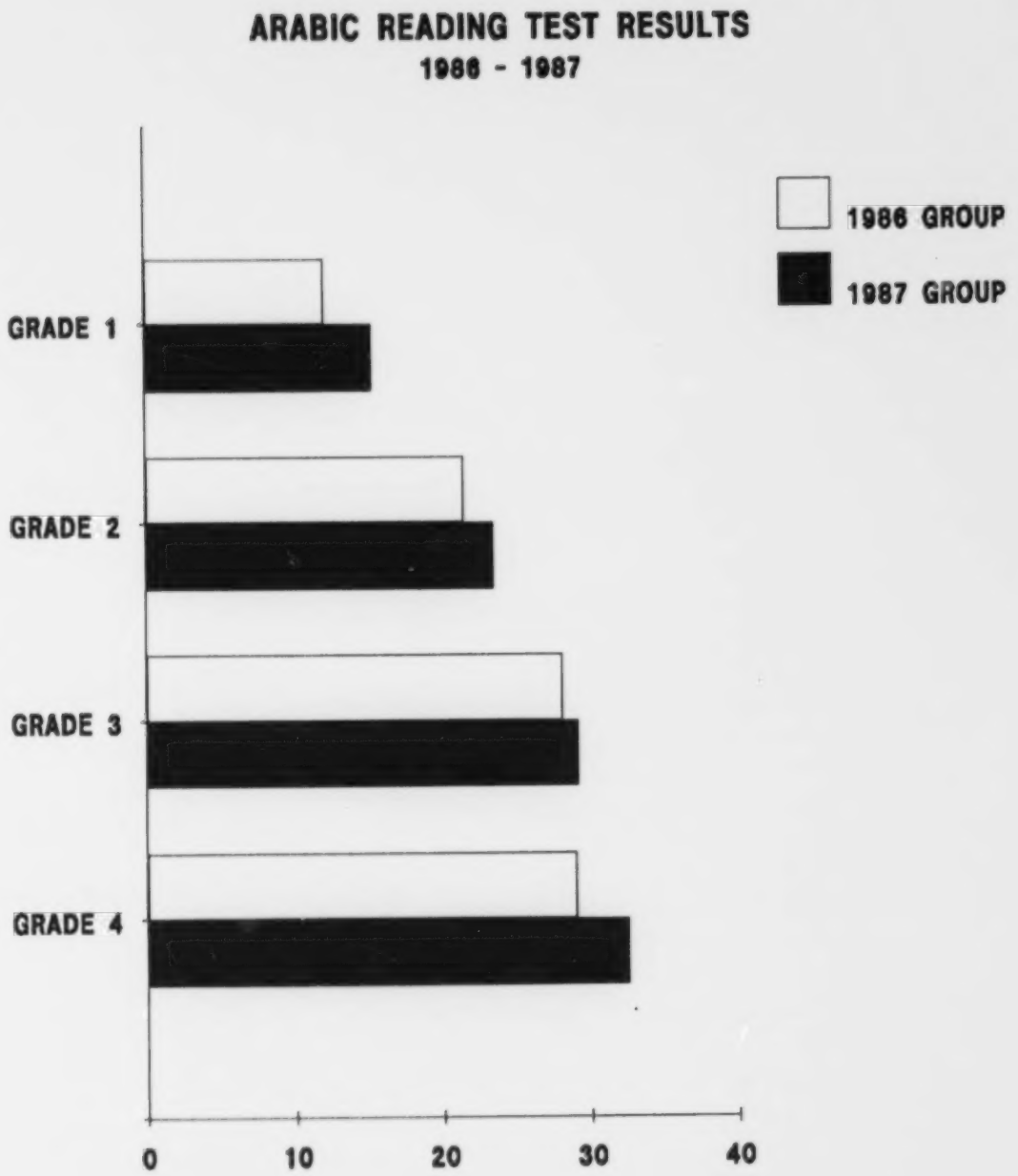

FIGURE 3: Comparison of Core Test Scores by Grade

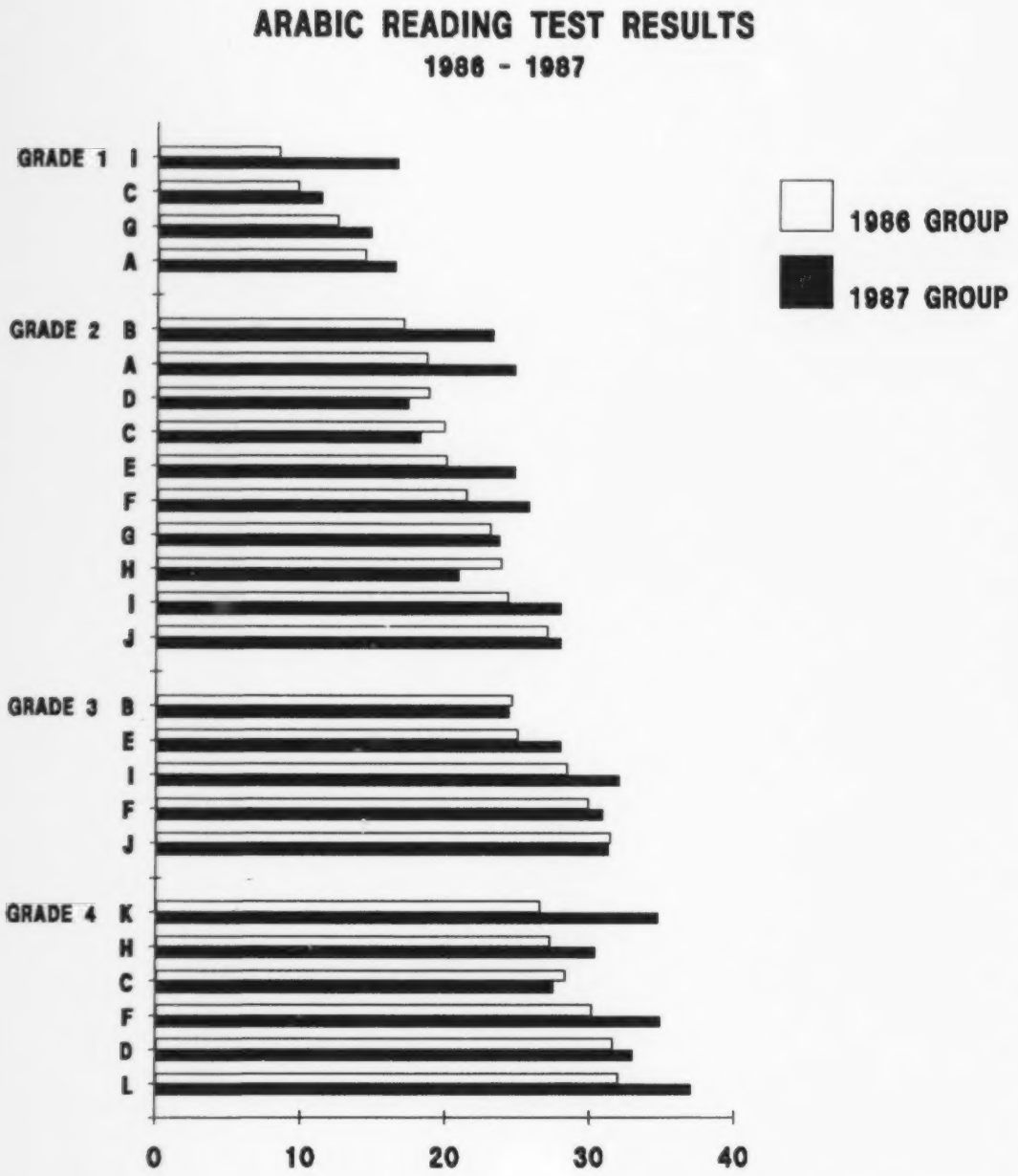

FIGURE 4: Comparison of Core Test Scores by School

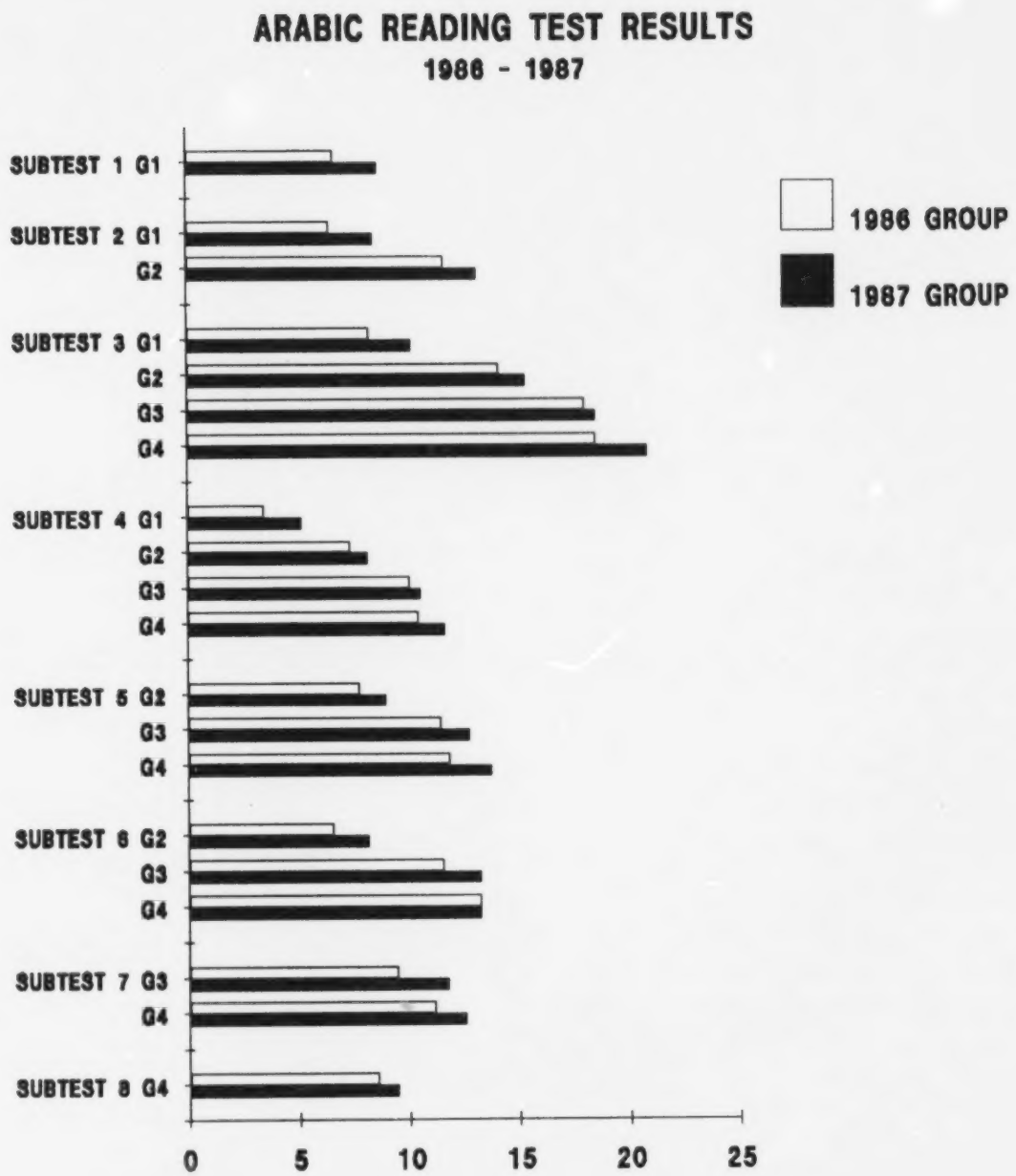

FIGURE 5: Comparison of Subtest Scores by Grade

Table 3.1.4

Results for Boys and Girls

TEST	GRADE	SEX	DECEMBER 1986 NUMBER	DECEMBER 1986 MEAN	DECEMBER 1986 S.D.	DECEMBER 1987 NUMBER	DECEMBER 1987 MEAN	DECEMBER 1987 S.D.	87-86
Total	1	M	173	26.07	12.81	147	32.50	10.54	6.43
		F	29	25.34	10.66	28	32.71	9.13	7.37
	2	M	302	43.01	16.45	261	51.33	15.45	8.32
		F	309	52.35	17.60	249	56.77	13.43	4.42
	3	M	102	58.36	17.17	71	62.20	18.41	3.84
		F	146	62.39	16.27	161	69.14	15.40	6.75
	4	M	112	73.12	17.62	71	72.13	23.28	-0.99
		F	211	74.62	20.93	191	87.40	16.89	12.78
Core	1	M	173	12.28	6.64	147	15.41	5.83	3.13
		F	29	11.93	6.01	28	15.07	5.79	3.14
	2	M	302	20.26	7.34	261	22.67	6.95	2.41
		F	309	22.91	7.16	249	24.62	6.10	1.71
	3	M	102	27.76	6.20	71	27.08	8.12	-0.68
		F	146	28.57	6.14	161	30.20	5.64	1.63
	4	M	112	29.04	6.11	71	29.93	7.75	0.89
		F	211	29.09	6.37	191	33.53	5.11	4.44

of AL MANAAHIL was confirmed for boys and girls, we were surprised by the results.

In Grade 1, the results are about the same for boys and girls. In Grades 2 and 3, the results are somewhat more positive for girls than boys. In Grade 4, results are primarily positive for girls and are not significantly positive for boys. These results support the evidence for an overall positive impact of AL MANAAHIL, but they raise questions about a differential impact by sex of student.

Special items. As explained above, there is one serious weakness in the interpretation given thus far. Although it is clear that children in 1987 performed better than those in 1986, it can be argued that the improvement would have occurred without AL MANAAHIL. Although we have no indication to lead us to believe that any changes occurred in the schools that would account for the results presented, nevertheless, it is possible that the improvement might have been due to an event or program other than AL MANAAHIL.

To provide evidence that the improvement in performance was due to AL MANAAHIL, we examined a subset of items clearly related to very specific objectives of the AL MANAAHIL series. Using the item descriptions in Appendix B, 33 items directly related to very explicit and specific goals were selected for further examination. A list of the items and the corresponding student response task is given on the next page. The complete listing of "Percent Correct" response rates by Grade is given in Table 3.1.5 for all items administered in 1986 and 1987. Special items are indicated by asterisks.

One item (Item 49) had been retained in the test in spite of poor performance in the pilot testing in May 1986. The item tested children's knowledge of "Haafila," the MSA word for bus. The item response data in May 1986 were technically inadequate to meet certain test standards used at ETS. We suggested deleting the item from the overall test. Dr. Muhammad Ibrahim strongly suggested that this item

Special Items in the Arabic Reading Test

Item	Student Response
6	Recognizes the word that includes the letter (gh) in medial form.
7	Recognizes the word that includes the letter (H) in medial form.
8	Recognizes the word that includes the letter (K) in final form.
9	Specifies the letter "Kaaf" at the end of a given word.
26	Recognizes the word that includes the letter (y) in medial form.
27	Recognizes the word that includes the letter (9) in initial form.
28	Identifies the word that has a connected form of the letter "taa."
29	Specifies the letter "DHaa" at the beginning of a given word.
32	Given a question, recognizes it should end with a question mark.
40	Recognizes the word that represents two of the same thing among other words similar in sound and shape.
41	Discriminates Zaay from Raa.
42	Discriminates Thaa from Yaa, Baa, and Nuun.
43	Discriminates Dhaal from Daal.
44	Discriminates Siin from Shiin.
45	Discriminates Dhaa from Taa.
46	Discriminates Qaaf from Faa, and Saad from Daad.
47	Discriminates Qaaf from Faa.
49	Recognizes the word "Haafilah" meaning "bus."
66	Recognizes the numeral used in Eastern Arab countries that corresponds to the numeral 8 used in Western Arab countries.
67	Recognizes the letter that comes next in order after a series of 4 ordered letters.
78	Recognizes the expression to be used when visiting a person that has recently come back from a trip or journey.
82	Specifies the letter in a four-letter word that has the "sukuun" sign.
83	Specifies the letter in a four-letter word that has the "shaddha" sign.
84	Recognizes one word in which "al" ("the") is pronounced (while in the other words it is not).
85	Recognizes one word in which "al" ("the") is not pronounced (while in the other words it is).
94	Recognizes that the form "rijaalun" ("men") is the right plural of the noun "rajulun" ("man").
101	Recognizes the meaningful grouping of words.
106	Recognizes the appropriate contextual answer to a statement followed by a question: "Samiir opened his bag and put his books in it; where did he go after that?"
109	Chooses one word "Al-ghazaal" as an answer to the question requiring an inference from the information given.
123	Recognizes the word (broken plural) that represents more than two, among other words similar in sound and written shape.
124	Recognizes the word representing one thing among other words having similar sounds but which are plural in meaning.
125	Recognizes the word "la9ibuu" ("they played") written correctly while the other given words are not.
150	Given 4 names, identifies which comes first in the telephone directory.

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Table 3.1.5

Percent of Children Responding Correctly to Test Items by Grade and Year with Special Items Noted by Asterisk

Subtest	Item	Grade 1 1986	Grade 1 1987	Grade 2 1986	Grade 2 1987	Grade 3 1986	Grade 3 1987	Grade 4 1986	Grade 4 1987
1	1	69	55						
	2	13	14						
	3	50	69						
	4	47	40						
	5	30	23						
	6*	38	75						
	7*	30	54						
	8*	58	74						
	9*	41	56						
	10	16	22						
	11	11	28						
	12	14	25						
	13	50	62						
	14	29	35						
	15	35	45						
	16	34	44						
	17	18	23						
	18	38	57						
	19	35	31						
	20	39	38						
2	21	53	70	91	95				
	22	55	57	90	86				
	23	40	44	56	54				
	24	37	25	32	38				
	25	27	22	21	29				
	26*	45	60	76	82				
	27*	29	49	74	76				
	28*	46	55	77	78				
	29*	27	32	60	63				
	30	37	59	80	85				
	31	30	25	48	58				
	32*	37	44	62	68				
	33	17	32	54	63				
	34	37	40	60	84				
	35	28	45	51	68				
	36	29	40	52	77				
	37	23	44	42	55				
	38	44	35	61	55				
	39	19	33	58	70				
	40*	15	34	26	40				

Table 3.1.5 (continued)

Percent of Children Responding Correctly to Test Items
by Grade and Year with Special Items Noted by Asterisk

Subtest	Item	Grade 1		Grade 2		Grade 3		Grade 4	
		1986	1987	1986	1987	1986	1987	1986	1987
3	41*	50	62	84	87	89	90	92	96
	42*	60	54	78	80	92	91	87	95
	43*	39	50	68	70	80	86	83	92
	44*	56	62	83	88	92	91	94	96
	45*	22	34	72	78	88	88	91	94
	46*	33	55	79	87	92	91	92	95
	47*	36	42	61	68	79	76	75	85
	48	36	46	34	43	48	58	57	64
	49*	13	14	10	27	15	32	13	56
	50	11	33	53	68	85	82	83	89
	51	41	41	75	78	87	84	79	88
	52	28	24	41	41	54	59	55	68
	53	33	26	55	61	72	73	76	84
	54	28	34	31	35	54	58	63	79
	55	31	22	19	23	42	45	43	67
	56	25	17	36	35	56	62	56	85
	57	33	23	48	47	69	60	65	73
	58	19	11	8	6	14	25	45	57
	59	32	49	68	71	84	85	73	77
	60	37	53	72	77	92	91	92	96
	61	46	67	76	84	92	92	90	96
	62	28	45	72	82	92	93	95	97
	63	52	55	85	84	96	94	94	98
	64	40	61	71	72	89	85	90	89
	65	22	38	40	50	63	71	72	78
4	66*	67	88	89	95	98	98	96	95
	67*	26	47	39	42	46	58	48	60
	68	32	31	57	57	62	59	49	72
	69	28	27	34	38	61	66	62	75
	70	39	34	76	76	91	91	92	96
	71	14	25	62	73	87	82	89	92
	72	26	26	52	59	73	77	69	87
	73	13	9	16	27	42	59	56	67
	74	27	41	52	58	59	66	72	77
	75	24	43	41	45	44	39	46	58
	76	23	53	49	63	67	75	66	83
	77	12	23	30	38	40	52	48	54
	78*	18	27	40	45	76	79	87	83
	79	15	19	53	63	82	85	89	87
	80	11	22	52	45	82	79	84	81

Table 3.1.5 (continued)

Percent of Children Responding Correctly to Test Items by Grade and Year with Special Items Noted by Asterisk

Subtest	Item	Grade 1 1986	Grade 1 1987	Grade 2 1986	Grade 2 1987	Grade 3 1986	Grade 3 1987	Grade 4 1986	Grade 4 1987
5	81			57	59	68	70	68	80
	82*			35	46	60	61	33	44
	83*			54	60	65	76	67	76
	84*			31	38	60	72	64	69
	85*			43	38	56	70	63	67
	86			54	58	75	76	79	88
	87			32	43	53	63	62	70
	88			44	47	56	63	66	72
	89			57	61	55	70	59	69
	90			23	28	56	57	61	72
	91			32	42	51	66	58	74
	92			25	27	40	33	39	54
	93			43	49	70	73	66	71
	94*			26	38	52	57	63	73
	95			31	40	62	72	59	80
	96			21	24	15	33	22	37
	97			67	68	95	93	93	89
	98			56	66	77	82	83	87
	99			34	37	48	49	44	52
	100			19	28	41	42	45	61
6	101*			39	40	72	78	80	84
	102			39	40	66	74	72	85
	103			43	43	71	79	85	85
	104			33	32	57	73	75	80
	105			17	21	15	39	38	48
	106*			39	55	73	84	76	83
	107			65	74	79	90	83	93
	108			32	41	59	60	60	73
	109*			28	47	43	59	53	67
	110			21	34	38	57	50	59
	111			38	45	77	78	84	86
	112			35	45	57	60	58	66
	113			23	29	57	63	65	76
	114			27	27	48	59	55	71
	115			23	45	20	39	34	40
	116			22	38	51	47	67	70
	117			42	38	75	78	79	84
	118			34	43	71	79	79	86
	119			31	45	73	74	74	83
	120			29	38	63	57	61	72

Table 3.1.5 (continued)

Percent of Children Responding Correctly to Test Items by Grade and Year with Special Items Noted by Asterisk

Subtest	Item	Grade 1		Grade 2		Grade 3		Grade 4	
		1986	1987	1986	1987	1986	1987	1986	1987
7	121					37	68	58	65
	122					50	73	67	73
	123*					56	66	64	80
	124*					26	54	44	62
	125*					45	70	58	66
	126					43	53	53	61
	127					87	89	86	81
	128					64	81	71	70
	129					68	66	71	82
	130					36	44	44	46
	131					41	50	49	53
	132					21	32	23	28
	133					29	33	32	23
	134					58	66	59	70
	135					44	52	53	59
	136					43	44	37	55
	137					73	79	79	87
	138					27	41	41	52
	139					62	67	74	78
	140					40	48	57	67
8	141							63	64
	142							49	51
	143							25	46
	144							55	66
	145							58	69
	146							36	37
	147							31	46
	148							23	21
	149							58	63
	150*							29	50
	151							68	75
	152							29	36
	153							50	62
	154							35	36
	155							50	30
	156							26	29
	157							56	45
	158							45	40
	159							45	52
	160							34	35

be retained because the word "Haafila" is a particularly good example of a Modern Standard Arabic word that children do not use in Jordan. Because of the widespread use of English in Jordan, use of the English word for bus had become common. Therefore, children tend not to learn the MSA word "Haafila." On the other hand, in Morocco and Tunisia, the linguistic influence is French. But, the French pronunciation of bus is not commonly used in the vernacular because the French "u" sound is not present in the Arabic language. Therefore, Dr. Ibrahim urged the retention of the item to check the hypothesis that, in 1986, children in Morocco and Tunisia would recognize the word "Haafila" more readily than children in Jordan. He suggested that performance on that item would improve markedly if AL MANAAHIL was successful.

Based on the 1986 data in Morocco and Tunisia, and the 1987 data in Jordan, both hypotheses were verified. In December 1986, in Jordan, 13% of first graders, 10% of second graders, 15% of third graders, and 13% of fourth graders responded correctly to Item 49. Corresponding "percent correct" response rates in Morocco were 10, 58, 72, and 71 and in Tunisia 22, 62, 73, and 91 respectively. We did not retest in Morocco and Tunisia in 1987 because the television series was not broadcast in 1987. In December 1987, in Jordan, in the same schools that participated in the December 1986 testing, the corresponding "percent correct" response rates were 14, 27, 32, and 56 in Grades 1, 2, 3, and 4 respectively. These results support the case that the increased performance of the children was due to AL MANAAHIL.

In order to judge the children's performance on the special items, it was necessary to identify reasonable estimates of what their performance would have been in the absence of AL MANAAHIL. First, we attempted to compare the children's "percent correct" response rates on one or more items to the average response rate for the subtest containing the item or items. This approach was not useful because differences in percents are difficult to compare at different points on the scale.

As an alternative, we compared items on the basis of whether the "percent correct" response rates increased between 1986 and 1987. If the reading skills of the children in 1987 were equal to the reading skills of the children in 1986, we would expect approximately half the items to show increases. If the reading skills of the children in 1987 were better than the reading skills of the children in 1986, we would expect the percentage of increases to be greater than 50%. The observed values, as the following data indicate, were 73%, 84%, 77%, and 88% for Grades 1, 2, 3, and 4 respectively.

Those results, obtained from the same data as results already presented in this chapter, are not surprising. We had already found that the children in 1987 performed significantly better than those in 1986. If the positive change was due to AL MANAAHIL, and if the special items we have selected are more closely related to the goals and objectives than other items in the Arabic Reading Test, then we would expect the improvement on the special items to exceed the overall improvement on all items. On the special items, the observed values for the special items alone were 95%, 96%, 73%, and 88%. In Grades 1, 2, and 4, the performance of the children on the special items exceeded the average performance using the total data. The results reported in Tables 3.1.1 and 3.1.2 were least significant in Grade 3, especially on the Core Test.

Although these results do not prove that the positive effects found in this study were due to AL MANAAHIL, they provide further supporting evidence for that conclusion.

Results based on adult judgments. Approximately 500 teachers, parents, and other adults responded to questions about the impact of AL MANAAHIL on Arab children. All agreed, by and large, that AL MANAAHIL had a positive impact on Arab children - on their learning as well as their enjoyment. Even those respondents who did not themselves like the series thought that the children liked it and that it had a positive impact on the children.

The results are given in full in the Section 3.4 and 3.5. Results relevant to the children's reading skills are given here.

A. Teacher judgments of impact on reading		NUMBER	PERCENT
Q8. Effect of AL MANAAHIL on children's reading skills.	Very Positive	24	17%
	Positive	74	53%
	Have no opinion	37	26%
	Negative	4	3%
	Very Negative	2	1%

(2) Judgments of parents and other adults

Q8. Effect of AL MANAAHIL on reading skills of children in Jordan.	Very positive	31	19%
	Positive	90	55%
	Not sure	34	21%
	Negative	8	5%
	Very negative	1	1%

These results support the conclusion reached in the preceding section, namely, that AL MANAAHIL had a positive impact on the reading skills of children in Jordan.

Summary. Results on the Grade Level Tests, the Core Test, and the 8 Subtests in the Arabic Reading Test Battery indicate that children's reading skills improved between December 1986 and December 1987. They improved on reading tests developed especially to test the goals and objectives of the AL MANAAHIL television series.

Because the increased test scores may have been due to other improvements taking place in the educational system in Jordan, student achievement on a special set of items directly related to very explicit items in the goals and objectives was examined. Performance on the special items supported the overall conclusion that AL MANAAHIL was the cause of the improvement in achievement.

Finally, teachers, parents, and other adults, when asked, supported the conclusion that AL MANAAHIL had a positive impact on the children's reading skills.

3.2. Impact on Student Behavior and Attitudes

Effects of AL MANAAHIL on the behavior and attitudes of children were inferred from the children's responses to questions asked when they were tested. Conclusions drawn from the children's responses were reinforced by information provided by teachers, parents, and other adults.

In the December 1987 testing, the children were asked to respond yes or no to five questions. Some questions were presented in the past tense because AL MANAAHIL was not on the air at the time of testing. The questions and the percentages of those responding "yes" in each grade are given below.

Question	PERCENT ANSWERING YES			
	GRADE 1 (N-199)	GRADE 2 (N-570)	GRADE 3 (N-232)	GRADE 4 (N-288)
1. Do you have a television set?	98.0%	97.5%	98.3%	97.9%
2. Do you know about the program AL MANAAHIL?	86.9%	97.0%	97.8%	98.6%
3. Did you see any shows when AL MANAAHIL was on?	87.9%	96.7%	97.0%	97.6%
4. Did you watch the AL MANAAHIL television series regularly?	80.4%	87.7%	89.2%	76.4%
5. Did you like the AL MANAAHIL programs when you saw them?	87.9%	94.6%	97.0%	95.5%

The children's responses appear to be credible. Members of the advisory committee had anticipated that virtually all children have access to television. The results are consistent across the four grades. And, the fact that the responses are least positive on question 4 increases our confidence that the children understood the questions. There were virtually no missing data.

These data indicate that the vast majority of children watched the shows and liked them. They are consistent with data collected from teachers, parents, and other adults who responded to survey questionnaires in December 1987.

Two surveys were conducted, a Teacher Survey and a General Survey intended for parents and other adults contacted through the University of Jordan. Copies of the questionnaires in English are given in Appendix D. The questionnaires were translated by Dr. Abdallah Kaylani, Dean, Faculty of Education, University of Jordan. They were distributed to teachers whose children participated in the testing program, and to teachers in graduate programs in the University of Jordan and the Amman Technical Institute. Full discussions of the responses are given in Sections 3.4 and 3.5. In this section, we summarize those results relevant to students.

In both surveys, respondents were asked to give their opinions of the overall impact of AL MANAAHIL on the children, its effect on the children's understanding and appreciation of Arabic culture and tradition, and its effect on the children's attitudes toward the show. Parents were asked if they watched the shows with their children.

TEACHERS ONLY		NUMBER	PERCENT
7. Overall effect of AL MANAAHIL on children.	Very Positive	32	23%
	Positive	71	51%
	Not Sure	31	22%
	Negative	4	3%
	Very negative	2	1%
9. Effect on children's understanding and appreciation of Arabic culture and tradition.	Very positive	24	17%
	Positive	65	46%
	Not sure	48	34%
	Negative	3	2%
	Very Negative	1	1%

		NUMBER	PERCENT
11. Feelings of children about AL MANAAHIL.	Like it very much	69	51%
	Like it somewhat	49	36%
	Neither like nor dislike	16	12%
	Dislike it	1	1%
	Dislike it very much	0	0%

PARENTS AND OTHER ADULTS		NUMBER	PERCENT
4. Do you watch AL MANAAHIL with your children?	Yes	99	62%
	No	60	38%
7. Overall effect of AL MANAAHIL on children.	Very positive	29	18%
	Positive	83	50%
	Not sure	42	25%
	Negative	11	7%
	Very negative	1	1%
9. Effect on children's understanding and appreciation of Arabic culture and tradition.	Very positive	22	13%
	Positive	82	50%
	Not sure	43	26%
	Negative	15	9%
	Very negative	2	1%
11. Feelings of children about AL MANAAHIL.	Like it very much	80	49%
	Like it	55	34%
	Neutral	23	14%
	Dislike it	1	1%
	Dislike it very much	3	2%

These results support the conclusions that the children watched the AL MANAAHIL series, that they learned from it, that they liked the programs, and that AL MANAAHIL had an overall positive impact on the behavior and attitudes of children in Jordan.

3.3. Impact on Adults in Literacy Programs

USAID expressed an interest in information about the effect of AL MANAAHIL on adults in need of special help in developing literacy skills. Through contacts at the University of Jordan, we were able to gather two small sets of data (See Tables 2.4.5 and 2.4.6).

In general, test scores of the 1987 group were lower than those of the 1986 group. Even on special items, because of the small numbers, it was not possible to replicate the approach used in the investigation of the children's data.

However, in 1987, the adults were asked the same five questions as the children. We considered their responses interesting and interpretable. In addition, although the numbers were small, there were significant differences in achievement between those who watched AL MANAAHIL and those who did not. We present the response data and some analysis of the test data, meanwhile cautioning the reader that these data can not be interpreted unambiguously.

QUESTION	NUMBER AND PERCENT ANSWERING YES	
	NUMBER (N=86)	PERCENT (100%)
1. Do you have a television set?	83	97%
2. Do you know about the program AL MANAAHIL?	62	72%
3. Did you see any shows when AL MANAAHIL was on?	58	67%
4. Did you watch the AL MANAAHIL television series regularly?	33	38%
5. Did you like the AL MANAAHIL programs when you saw them?	54	63%

Note that only 58 (67%) reported seeing at least one of the AL MANAAHIL programs. Therefore, the 54 (63%) who reported liking the series represent 93% of those who reported seeing some of the shows.

The data provided to ETS gave grade levels for each adult. There were 22, 58, and 6 adults identified as being at Grade 1, Grade 3, and Grade 4 levels respectively. It is interesting to examine the data by grade level.

Adults	Grade Level Test			Core Test		
	N	Mean	SD	N	Mean	SD
Grade 1	22	47.2	16.7	22	22.1	8.9
Grade 3	58	62.9	15.1	58	28.2	6.6
Grade 4	6	95.5	3.2	6	25.7	2.4
Total	86	----	---	86	26.4	7.5

Because the Grade Level Tests are unique to the grade, it is not possible to interpret the data on those tests. In other words, the fact that mean scores on Grade Level tests increase as you proceed down the column is meaningless. Therefore, no average is given for the total 86 adults. On the other hand, the Core Test data are quite interesting because all adults took the same Core Test. The mean score for adults listed as being at the Grade 1 level appears reasonable in that it is less than those listed as functioning at higher levels. However, those listed as functioning at a Grade 3 level performed better on the average than those listed as Grade 4. In general, adults listed as functioning at a Grade 1 level performed much better than Grade 1 children in the evaluation. These same kinds of problems and issues occur in the United States when grade level terminology are used for adults.

To provide information on the impact of AL MANAAHIL on the reading skills of the adults, we compared the scores of those who indicated that they watched regularly (N-33) with those who did not watch any programs at all (N-28). Of course, any interpretation is confounded by the fact that achievement may be either negatively or positively correlated with viewing. Therefore, results cannot be interpreted apart from all other results in the study. If positive, we can say they point in the same direction as other results. The results are summarized below. Because the adults were identified as being at the Grade 1, 2, 3, and 4 level, they took different groups of subtests. We examined the results using the Core Test results.

The average score on the Core Test for the 33 adults who watched AL MANAAHIL regularly was 29.6 with a standard deviation of 4.7. The average score of 28 adults who reported viewing no programs at all was 24.4 with a standard deviation of 8.3. The difference of 5.2 is significant ($p < .01$) for these samples. This result supports the overall conclusion of a positive impact of AL MANAAHIL on those who viewed the shows.

3.4 Impact on Teachers

USAID expressed its interest in information about the effects of AL MANAAHIL on teachers. It was anticipated that teachers might adopt and/or adapt some of the formats and approaches used in the series. In addition, it was anticipated that use of the MSA would provide a motivation for teachers to continue incorporating MSA in the earliest years of the children's schooling.

Teachers whose children were tested, and other teachers in programs at the University of Jordan and the Amman Technical Institute, were asked to respond to a questionnaire. Approximately 200 questionnaires were distributed. In all, 144 teachers responded during the month of December 1987. Responses are summarized below. Percentages are based only on those who responded to a given question. This is a common way of reporting these kinds of data. However, in some instances, the results are misleading. For example, the responses to question 13 are based on only 68 teachers who responded to that question. Thus, the distribution gives the results for the responding sample. An implication of this approach is that others would have given similar responses if they were forced to respond. The approach depends on the use that will be made of the results.

		NUMBER	PERCENT
1. Grades taught by responding teachers.	Grade 1	26	19%
	Grade 2	21	16%
	Grade 3	27	20%
	Grade 4	48	36%
	Grade 5	13	10%
2. Number of children taught. (Not reported)			
3. Number of years teaching.	First year	10	7%
	1 - 5	23	16%
	6 - 9	32	23%
	10 or more	76	54%

		NUMBER	PERCENT
4. Are you "familiar" with the TV program AL MAAAHIL?	Yes	100	75%
	No	33	25%
5. Number of half-hour programs of AL MANAAHIL seen.	Haven't seen any	23	16%
	1 - 2	36	26%
	3 - 9	61	44%
	10 or more	20	14%
6. Do you like the TV series AL MANAAHIL?	Like it very much	22	16%
	Like it	69	49%
	Not sure	18	13%
	Dislike it	25	18%
	Dislike it very much	8	6%
7. Overall effect of AL MANAAHIL on children.	Very Positive	32	23%
	Positive	71	51%
	Not Sure	31	22%
	Negative	4	3%
	Very negative	2	1%
8. Effect of AL MANAAHIL on children's reading skills.	Very Positive	24	17%
	Positive	74	53%
	Have no opinion	37	26%
	Negative	4	3%
	Very Negative	2	1%
9. Effect on children's understanding and appreciation of Arabic culture and tradition.	Very positive	24	17%
	Positive	65	46%
	Not sure	48	34%
	Negative	3	2%
	Very Negative	1	1%
10. Type of feedback from parents.	Very Positive	16	12%
	Positive	61	44%
	No feedback	48	35%
	Negative	11	8%
	Very negative	3	2%

		NUMBER	PERCENT
11. Feelings of children about AL MANAAHIL.	Like it very much	69	51%
	Like it somewhat	49	36%
	Neither like nor dislike	16	12%
	Dislike it	1	1%
	Dislike it very much	0	0%
12. Effect of AL MANAAHIL on your teaching.	Very positive	12	9%
	Positive	62	45%
	No effect	55	40%
	Negative	7	5%
	Very negative	1	1%

13. Examples of ways that AL MANAAHIL has been helpful. (68 respondents)

	Language	18	27%
	Information, conversation	34	50%
	Reading and writing	16	24%

14. Strengths and weaknesses of AL MANAAHIL.

A. STRENGTHS: (69 respondents)	Language	23	33%
	Information	18	26%
	Variety	6	9%
	Methods	17	25%
	Reading and writing	5	7%
B. WEAKNESSES: (57 respondents)	Production, direction, acting	25	44%
	Non-presence of children	18	32%
	Use of parts-to-whole approach in language teaching	12	21%
	Lack of emphasis on dictation	2	4%

In general, the results are positive. The majority of teachers (65%) indicated that they liked the series or liked it very much. Most (74%) noted that the series had a positive or very positive impact on the children. When asked about AL MANAAHIL's effect on their teaching, a majority (54%) of teachers indicated that AL MANAAHIL had a positive or very positive effect.

3.5. Impact on Parents and Other Adults

A general questionnaire about AL MANAAHIL was distributed to approximately 200 faculty members and friends through the Dean's office in the Faculty of Education at the University of Jordan. Although this is a narrow sample, the results are consistent with other results in the study. The data have not been reviewed further to resolve inconsistencies due to alternatives provided in the listing of descriptive characteristics. Nor have simple categories of strengths and weaknesses been examined in detail. In all, 173 adults responded to the questionnaire.

			NUMBER	PERCENT
1.	Description of respondents.	Parent	107	64%
		Primary School Teacher	4	3%
		Preparatory School Teacher	2	1%
		Secondary School Teacher	9	5%
		University Staff Member	4	2%
		Graduate Student	21	13%
		Other	21	13%
2.	Do you have any young children - ages 5 to 9?	Yes	115	69%
		No	51	31%
3.	Are you familiar with the TV program AL MANAAHIL?	Yes	124	74%
		No	44	26%
4.	Do you watch AL MANAAHIL with your children?	Yes	99	62%
		No	60	38%
5.	How many half-hour programs of AL MANAAHIL have you seen?	Haven't seen any	15	9%
		1 - 2	52	31%
		3 - 9	76	45%
		10 or more	25	15%
6.	Do you like the TV series AL MANAAHIL?	Like it very much	28	17%
		Like it	74	44%
		Not sure	17	10%
		(Don't care)	32	19%
		Dislike it	16	10%

		NUMBER	PERCENT
7. Overall effect of AL MANAAHIL on children.	Very positive	29	18%
	Positive	83	50%
	Not sure	42	25%
	Negative	11	7%
	Very negative	1	1%
8. Effect of AL MANAAHIL on reading skills of children in Jordan.	Very positive	31	19%
	Positive	90	55%
	Not sure	34	21%
	Negative	8	5%
	Very negative	1	1%
9. Effect on children's understanding and appreciation of Arabic culture and tradition.	Very positive	22	13%
	Positive	82	50%
	Not sure	43	26%
	Negative	15	9%
	Very negative	2	1%
10. Type of feedback from associates about AL MANAAHIL.	Very positive	19	12%
	Positive	56	34%
	Not sure	51	31%
	Negative	31	19%
	Very negative	7	4%
11. Feelings of children about AL MANAAHIL.	Like it very much	80	49%
	Like it	55	34%
	Neutral	23	14%
	Dislike it	1	1%
	Dislike it very much	3	2%
12. Strengths and weaknesses of AL MANAAHIL.			
STRENGTHS: (110 respondents)	Language	55	50%
	Reading & writing	32	29%
	Information	23	21%
WEAKNESSES: (100 respondents)	Acting, direction, production, style, method	52	52%
	Non-presence of children	13	13%
	Lack of motivation/excitement artificiality	35	35%

These results also support the general conclusion of an overall positive impact of AL MANAAHIL. However, note that the data are not consistent across responses. We have decided to present them as received because some problems may have been due to translations and misunderstanding. For example, in Question 3, respondents were meant to indicate "familiarity" with the series. The Arabic question probably has an additional meaning. Otherwise, how can we interpret Question 3 (44 respondents are listed as giving "no" responses) and Question 5 (only 15 respondents saw no shows at all). It is more likely that 153 of the respondents, or 91%, are familiar with the AL MANAAHIL series. Rather than not report these informative data, we have decided to report them with the inconsistencies present. In general, the estimate of positive effects is a conservative one.

Of those who responded to Question 6, the majority (61%) liked the series or liked it very much. Again, this is a conservative estimate. Notes provided with the data indicate that the question was rephrased somewhat.

Regardless of the problems in interpreting all of the responses, some responses are very clear. On Questions 7 and 8, the majority of respondents agree that the impact of AL MANAAHIL was positive or very positive on the children in general and on their reading skills. There are small numbers of negative responses on most responses. This result gives credibility to the overall data. More details on this information would require further research beyond the modest surveys attempted in this study.

CHAPTER 4

SUMMARY AND CONCLUSIONS

This complex project involved a number of different groups and organizations with a variety of goals and objectives. In this summary chapter, we conclude by mentioning the principal goals achieved by each.

For the Arab nations, and Jordan in particular, there is now available a professional television program valid for the purposes intended - to help children learn Modern Standard Arabic. In Jordan, there exist a talented group of actors and actresses ready to use MSA in additional television programs for children, television producers with expertise in using new production formats and techniques, a prototype children's television series as a standard to surpass - 65 half-hour shows which are entertaining and educationally effective. In AL MANAAHIL, all Arab countries, and other countries with Arab populations, have a children's series that is clearly Pan-Arab.

Children's Television Workshop can be satisfied with having persevered through many difficult technical issues, complex production schedules, equipment transfers from the United States to Jordan, the addition of new staff when needed, logistics of housing and travel, health issues, and maintenance of camaraderie and morale. They fostered professionalism, collaboration, good humor, and respect among those who participated in the creation and production of AL MANAAHIL.

The United States Agency for International Development has succeeded in funding and directing a mass media project with valid signs of success and good indications that that success will spread farther afield in the future.

Educational Testing Service gained experience in working collaboratively with educational systems in Arab nations. Conducting research which required detailed test construction and production, large scale data collection, transferring of large amounts of data from Arab countries to the United States, shipping tests locally between Arab countries, obtaining local translations of materials, negotiating contracts with colleagues in research, frequent transfers of funds abroad, and working with alumni of the ETS International Summer Educational programs were rewarding activities. Communication between Jordan, Morocco, and Tunisia was fostered. And, finally, many new friendships were made.

Overall, the AL MANAAHIL project appears to have accomplished its goals. The television series was generally liked by all groups who viewed the programs. Children learned. Adults learned. Teachers used strategies form the shows in their teaching. Many parents watched AL MANAAHIL with their children. There was evidence in the evaluation to support all these conclusions.

APPENDICES

APPENDIX A: Goals and Objectives of AL MANAAHIL

APPENDIX B: Description of Items in the Arabic Reading Test Battery

APPENDIX C: Technical Data on the Arabic Reading Test Battery

APPENDIX D: Questionnaires for Teachers, Parents, and Other Adults

APPENDIX E: Test Administration Reports

APPENDIX F: Advisory Committee for the AL MANAAHIL Project

APPENDIX A

Goals and Objectives of AL MANAAHIL

III. SPECIFIC GOALS AND LANGUAGE CONTENT

A. Phonology (Sounds)

1. Correct pronunciation of all sounds in standard Arabic. Special emphasis will be given to problems arising from underdiscrimination between certain sounds in some social and regional dialects spoken in the Arab region, and in particular:

   i. Correct pronunciation of dhaal and distinguishing it from daal and zaay.

   ii. Correct pronunciation of thaa' and distinguishing it from taa' and siin.

   iii. Correct pronunciation of DHaa' and distinguishing it from Daad and zaay mufakhkhama.

   iv. Correct pronunciation of Daad and distinguishing it from DHaa'.

2. Correct aural discrimination of individual Arabic sounds. This follows from and is closely connected with the preceding item. For example, a speaker who does not have DHaa' or thaa' in his/her should be able to hear these sounds when they occur in standard Arabic and distinguish them from Daad' or zaay mufakhkhama and siin or taa' respectively.

3. Recognition and production of correct or suitable intonation patterns used in association with specific patterns of written language. Thus, the intonation pattern used with a question is different from that used with a statement, a command, or an exclamation, a fact which is indicated in writing by the use of different punctuation marks for each of these types of utterance. Intonation can also vary within the same type of utterance as when different intonation patterns are used to distinguish a complete utterance (indicated by a full stop in writing) from an incomplete one (indicated by a comma, dash, etc.).

4. Correct and smooth pronunciation of syllables, words, and sentences in general (i.e., the articulation of sounds in connected speech). More specifically:

   i. Correct pronunciation of the definite article 'al- in relation to "sun" and "moon" letters.

   ii. Correct pronunciation of letters and symbols with more than one pronunciation as in:

      -- 'alif as a vowel and as a carrier of the hamza,

      -- waaw and yaa' as vowels and consonants,

-- the taa' marbuuTa as a taa' and a haa', and

-- elision associated with the Hamzatu l-waSl.

5. The use and appreciation of spoken language as a source of joy and amusement (word play, songs, rhymes, etc.).

B. Orthography (Writing)

1. Correct visual discrimination of letters of the alphabet and their names, with special attention to:

   i. Recognizing different shapes of the same letter (including alif maqSuura and 'alif mamduuda).

   ii. Correct discrimination of letters with identical or similar shapes but different dotting.

2. Recognizing diacritical and short vowel signs and their contribution to pronunciation. These include:

   i. Short vowel (vocalization) signs (fat-Ha, Damma, and kasra).

   ii. Diacritics (shadda, sukuun, madda, hamzatu l-wasl).

   iii. Nunnation signs (tanwiin fat-Ha, Damma, and kasra).

3. Dealing with some problems which arise from the lack of correspondence between spelling and pronunciation. These problems include:

   i. Sounds represented by different letters or letter shapes or symbols (e.g., 'alif, haa', hamza, taa', and nuun which is represented by a letter and three nunnation signs).

   ii. Sounds which are not represented in writing such as the long vowel in haadhaa, laakin, and Taahaa.

   iii. Letters and symbols which are written but not pronounced (e.g., 'alifu l-jamaa'a, the unpronounced waaw in 9amr, and hamzatul l-waSl).

   iv. Recognition of letter combinations (digraphs).

   v. Letters which stand for more than one sound (e.g., 'alif, waaw, and yaa').

4. Correct letter formation and spelling in writing, including correct positioning on the line and correct hand movement, and the ability to distinguish which letters connect to others and which do not.

5. The use and significance or function of punctuation marks in writing.

6. Recognition of differences between numerals used in the Maghrib (Western) and Mashriq (Eastern) Arab countries.

7. Learning the Arabic alphabetic order.

C. Morphology (Paradigms and Patterns)

1. Associating some grammatical endings (inflections) with certain grammatical devices (e.g., jarr marked by i, -in, etc. with prepositions, jazm in verbs with lam, fat-Ha with 3rd person singular verbs in the past, etc.)

2. Attending to some special issues in morphology which have a bearing on reading such as:

   i. hamzatu l-waSl in some verb forms (e.g., staqbala) and their derivatives and moods (imperative).

   ii. Sound and broken plurals.

   iii. Dual forms.

   iv. Passive and active verb forms (mainly form I verbs).

3. Presenting suitable and adequate material on the derivational patterning of Arabic including:

   i. Verb forms (I - X) (i.e., the basic and augmented forms).

   ii. Nominal and adjectival forms derived from some of these verb forms.

   iii. Derivational analysis of related words as in the different verb forms (I, II, III, IV, etc.), words belonging to different parts of speech derived from the same root (to write, book, writer, office, library, letter, etc.).

4. Presenting suitable and adequate material concerning the structural patterning and analysis of Arabic words including:

   i. Number and gender in nouns and adjectives (singular, dual and plural; masculine and feminine).

   ii. Person, gender, and number in verbs.

   iii. Person, gender, and number in pronouns.

   iv. Agreement patterns in number and gender (masculine vs feminine patterns) and definiteness (definite noun + definite adjective or indefinite noun + indefinite adjective).

5. Vowel mutations in some verbs and other parts of speech related to them as in:

   - ghafaa; yaghfuu; ghafawtu; ghafwa;
     ramaa; yarmii; ramaytu; ramya;
     naama; ynaamu; nimtu; nawma;

   Or as in

   - WaSala; YaSilu; Waqafa; Yaqifu;
     WaDh9a, YaDha9u.

6. Patterns of adjectival comparison (e.g., kabiir; 'akbar; kubraa).

D. Syntax (Grammar)

1. Word order and its importance to meaning and as a factor in morphology and grammar.

2. Relation of grammar to meaning as in:

   i. The difference between active and passive constructions.

   ii. Differences in number, gender, and definiteness.

   iii. The relation between tense, mood and time in verbs.

   iv. Nominal and adjectival cases.

   v. Inflections associated with various verb moods.

   vi. Different types of utterances and their corresponding meanings (statements, questions, commands, affirmative and negative sentences, etc.).

3. Patterns of questions and answers appropriate to each pattern (Who? How? What? When? Yes/No questions, etc.).

4. Basic structural sentence patterns, including the following three major types and some of their sub-types:

   i. Structurally simple patterns (i.e., those consisting of a subject and predicate) and some of their variations:

      a. Nominal sentences:

         1. With the subject as a singular noun; demonstrative, personal pronoun, etc..

         2. With the subject as a dual form of the preceding elements.

         3. With the subject as a plural (masculine and feminine 'sound' as well as 'broken') form of the elements in (1) above.

         4. With the predicate as a singular, dual, and plural form (as detailed for the subject in 1-3 above).

         5. With the predicate as a prepositional or adverbial phrase.

      b. Verbal sentences:

         1. With the verb element in first or second position.

         2. With the predicate as an intransitive verb in the past or present, simple or augmented, alone or followed by another element (e.g., an adverb).

         3. With the predicate as a transitive verb in the past or present, simple or augmented,

         4. Active sentences with the subject unstated.

         5. Passive sentences.

      c. Nominal and verbal sentences used with some 'auxiliary' verbs (e.g., kaana and its 'sisters') or particles (e.g., 'inna and its 'sisters').

   ii. Structurally non-simple sentences which can be processed by members of the target group including:

      a. Non-simple sentences with co-ordinate (conjunctive) elements only.

      b. Non-simple sentences with subordinate (embedded) sentences only in which the subordinator is a relative pronoun or a particle ('in 'if,' 'inna 'verily,' 'idhaa 'if,' etc.).

      c. Non-simple sentences with subordinate and co-ordinate sentences at the same time.

iii. Basic communicative sentence patterns, including:

a. Affirmative statements.

b. Negative statements.

c. Affirmative questions.

d. Negative questions.

e. Affirmative commands or requests.

f. Negative commands or requests.

g. Exclamations.

h. Conditional sentences.

i. Vocative sentences.

j. Exceptive sentences.

E. Lexis (Vocabulary)

1. Teaching basic sets of sight reading vocabulary including the following sets or parts thereof:

   i. Function words (prepositions, pronouns, demonstratives, interrogatives, adverbs, 'yes'/'no' particles, markers of discourse, etc.).

   ii. Expressions and formulas which recur in the children's environment.

   iii. High-frequency words in the children's environment.

2. Expanding the children's MSA vocabulary and reinforcing their existing stock of such words in addition to developing their awareness of the need for precise vocabulary selection as a means to achieving accuracy of expression (e.g., choosing the right word from a group of semantically related words to denote the sound of a specific animal; choosing the right word to denote a certain baby, animal, or bird; choosing the right word to describe a mode of locomotion - 'walk,' 'jog,' 'run,' etc.).

3. Idioms and other types of formulaic language which help the children acquire sociolinguistic competence and the appropriateness of language to the following factors, among others:

   i. Time of day (e.g., good morning, good evening).

ii. Situation (e.g., saying 'thank you' to a person who helps speaker).

iii. Linguistic input (e.g., a greeting from another person must not be met with silence from the addressee but with a suitable exchange of greetings.

iv. Occasion (e.g., using language appropriate to such occasions as a birthday, Christmas, etc.).

v. Conventionalized associations between linguistic and non-linguistic matters (e.g., breakfast is associated with morning, lunch with noon, and dinner with evening).

4. Utilization of the notion of 'word family' on various linguistic levels including:

i. Paradigms and conjugations.

ii. Derivational patterns based on the same root.

iii. Semantically related words and concepts (e.g., kinship terms used in agriculture, cooking, health, time, quantity and amount, comparison and degree, location and direction, cause and result, purpose and reason, etc.).

iv. Synonyms and antonyms.

v. Phonologically related words (minimal pairs, rhyming words, words used for progressive shifting, etc.).

vi. Grammatical and structural similarity (parts of speech).

vii. Orthographic similarity (as in words which differ with regard to dotting or with regard to vocalization).

5. Lexical variation in MSA as in the case of different words used in naming some fruits and vegetables (e.g. peaches, plums, potatoes, tomatoes), milk products (e.g., laban, Halib, yoghurt), units of currency (e.g., diinaar, dirham, riyaal, liira, jineeh), and others.

6. Using dictionaries and other reference material (e.g., children's encyclopedias, telephone directories, etc.).

7. Teaching some basic meta-linguistic terms and concepts which are essential in the presentation of program content. Examples of such concepts are: word, sentence, names of letters of the alphabet and the diacritics, punctuation marks, questions, and others.

F. Comprehension

Without teaching comprehension as an ultimate goal, no reading program would be worth the name. However, because of special considerations, which include such factors as the limitations of television for presenting extended texts and the age group which is the target of the AL MANAAHIL series, we must necessarily satisfy ourselves with the teaching of the most basic and elementary reading skills and strategies which will hopefully provide the target population with the sound and solid foundations needed for becoming effective and mature readers in the future. But even at this basic level and with such a limited and modest objective, a number of strategies can be usefully exploited to teach early reading comprehension. Some comprehension goals are, in fact, contained either explicitly or implicitly under other goal areas, such as morphology and lexis, as set forth above. Additional comprehension goals, which will be given special attention in the series, are listed below:

1. Teaching some basic skills which require the ability to make use of contextual cues, such as:

   i. Supplying a missing element, such as a letter, a syllable, or a word.

   ii. Sequencing a group of scrambled words or sentences.

   iii. Deducing the meanings of some unfamiliar words from structural information (root, derivation, etc.) or contextual clues.

   iv. Recognition, understanding, and recall of specific and explicitly stated information and/or details.

2. Teaching some skills which develop in the viewers the ability to interpret the text they are reading, such as:

   i. Paraphrasing a sentence or explaining it, verbally or through an activity.

   ii. Extracting information implicit in the text, on the basis of which information inferences can be made and conclusions drawn.

   iii. Articulating the main idea of a short text.

   iv. Judging the plausibility of a sentence.

APPENDIX B

Description of Items in the Arabic Reading Test Battery

ARABIC READING TEST

CTW/AID TV READING SERIES PROJECT

1985-1988

Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
1	A	Aural discrimination of sounds in MSA	Recognizes the word that contains the sound of a letter	1	Recognizes the word that includes the sound of the letter "Thaa"
2	A	(Same as above)	(Same as above)	2	Recognizes the word that includes the sound of the letter "Daa"
3	A	Aural discrimination of sounds: "yaa'" as a vowel and consonant	Identifies the written form of a word when student hears the word	3	Recognizes the written form of the word "dayn" ("debt") where the "yaa'" is used a consonant after student hears the word
4	A	Aural discrimination of sounds: "waaw" as a vowel and consonant	(Same as above)	4	Recognizes the written form of the word "usuud" ("lions") when the "waaw" is used as a vowel after student listens to the word, and distinguishes it from "waaw" as a consonant in "aswad" ("black").
5	B	Recognize "nunation" signs	Identifies the written form of a word when student hears the word	5	Recognizes the written form of a word with "tanwiin annaSb" after student listens to the word, and distinguishes it from other kinds of "tanwinn"
6	B	Discriminate letters and distinguish them from other letters similar in dotting and/or shape	Selects correct word from four choices	6	Recognizes the word that includes the letter (gh) in medial form
7	B	(Same as above)	(Same as above)	7	Recognizes the word that includes the letter (H) in medial form
8	B	(Same as above)	(Same as above)	8	Recognizes the word that includes the letter (K) in final form
9	E	Identify the letter at the end of a word	Recognizes the letter at the end of a word	9	Specifies the letter "Kaaf" at the end of a given word
10	E	Identify semantically related words and concepts	Chooses a word that completes the sentence meaningfully	10	Recognizes the word (meaning "the table") as the right choice to complete the sentence: The thing that is made of wood is...
11	E	(Same as above)	(Same as above)	11	Recognizes the word (meaning "Barley") as the right choice to complete the sentence: The word that refers to one kind of cereal is...
12	E	Recognize semantically related words and concepts	Chooses a word that gives the meaning of another word (synonyms)	12	Recognizes a synonym of the word "almanzil" meaning "the house" and its synonym "addaar"
13	E	(Same as above)	(Same as above)	13	Recognizes "al-malaabis" as a synonym of the word "aththiyaab" meaning "the clothes"
14	E	(Same as above)	(Same as above)	14	Recognizes "qa9ada" as a synonym of the word "jalasa" meaning "sat"
15	E	Recognize familiar antonyms	Selects correct antonym from four given choices	15	Recognizes the antonym of the word "Saqhiil" meaning "small"
16	E	Choose the word denoting a certain baby animal	Recognizes the word that describes the name of a baby animal	16	Identifies the word "SuuS" as the one that describes a chick
17	E	Choose the word denoting the sound of an animal	Recognizes the word that describes the sound of an animal	17	Identifies the word that describes the voice of the dog
18	E	Identify idiomatic language connected with linguistic input	Chooses the correct answer completing a statement	18	Recognizes the word that should be said on the occasion when "he steps on his friend's foot unintentionally"
19	E	(Same as above)	(Same as above)	19	Recognizes the expression used when somebody says to him, "thanks..."

Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
20	F	Utilize contextual meaning to supply a missing element	(Same as above)	20	Recognizes that the word "jawa9aan" meaning hungry is the proper word to complete the sentence meaning: When you feel in need of food, you say I am...
21	A	Aural discrimination of sounds in MSA	Recognizes the word that contains the sound of a letter	21	Recognizes the word that includes the sound of the letter "Zaay"
22	A	(Same as above)	(Same as above)	22	Recognizes the word that includes the sound of the letter "Dhaal"
23	A	Aural discrimination of sounds: "taa' marbutta" as a "taa'" and a "haa'"	Identifies the written form of a word when student hears the word	23	Recognizes the written form of the word "bunaaton" ("builders") where "taa' marbutta" is pronounced as a "taa'" after student listens to the word
24	B	Recognize diacritical and short-vowel signs	(Same as above)	24	Recognizes the written form of the word "khayyal" after student listens to the word and distinguishes "shadda"
25	B	Understand written material whenspelling and pronunciation do not correspond: e.g., sounds not represented in writing	Identifies written form of a word when student hears the word	25	Recognizes the written form of the word "haadhaa" when student hears the word
26	B	Discriminate letters and distinguish them from other letters similar in dotting and/or shape	Selects correct word from four choices	26	Recognizes the word that includes the letter (y) in medial form
27	B	(Same as above)	(Same as above)	27	Recognizes the word that includes the letter (9) in initial form
28	B	Visual discrimination of the letters of the alphabet	Chooses a word that contains a specified letter	28	Identifies the word that has a connected form of the letter "taa"
29	B	Identify the letter at the beginning of a word	Recognizes the letter at the beginning of a word	29	Specifies the letter "DHaa" at the beginning of a given word
30	E	Recognize semantically related words and concepts	Chooses a word that gives the meaning of another word (synonyms)	30	Recognizes the meaning of the word "Dhayl" meaning "tail"
31	E	Recognize familiar antonyms	Selects correct antonym from four given choices	31	Recognizes the antonymn of the word "Tawiil" meaning "tall"
32	B	Understand functions of punctuation marks	Identifies punctuation mark to be placed at the end of a sentence	32	Given a question, recognizes it should end with a question mark
33	F	Supply a missing element (a word) and deducing the meaning of the element from the context	Chooses a word that completes the sentence meaningfully	33	Recognizes the word (meaning "the cart") as the right one that completes the meaning of the sentence: The horse pulls...
34	F	(Same as above)	(Same as above)	34	Recognizes the word (meaning "Hair") as the right one that completes the meaning of the sentence: The barber cuts...
35	F	(Same as above)	(Same as above)	35	Recognizes the phrase (meaning "with the saw") as the right choice to complete the sentence: The carpenter cuts the wood...
36	E	Identify semantically related words and concepts	(Same as above)	36	Recognizes the word (meaning "the shirt") as the right choice to complete the sentence: Among the things we wear is...
37	C	Recognize agreement pattern in person, gender, and number between verb and pronoun	Chooses the verb that goes with a pronoun	37	Recognizes the right form of the verb "tafhamu" that goes with the second singular pronoun "Anta"

Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
38	C	Recognize agreement in gender, person, and number between the verb and pronoun	Chooses the right form of pronoun that goes with given form of verb	38	Recognizes that the pronoun "naHnu" (we--plural) is the form that goes with the verb "naktubu" meaning "we write"
39	D	Recognize inflections associated with verb moods	Associates the right particle with a specific verb ending	39	Recognizes the type of word "naSb" preceding the verb which produced the mood in the verb
40	C	Recognize the "dual" form of a noun	Identifies a word that represents dual form of noun	40	Recognizes the word that represents two of the same thing among other words similar in sound and shape
41	B	Visual discrimination of the letters of the alphabet Discriminate letters with identical or similar shapes but different dotting	Recognizes a word that goes with a picture Key word has a letter similar in shape but different in dotting from another letter in the other options	41	Discriminates Zaay from Raa
42	B	(Same as above)	(Same as above)	42	Discriminates Thaa from Yaa, Baa, and Nuun
43	B	(Same as above)	(Same as above)	43	Discriminates Dhaal from Daal
44	B	(Same as above)	(Same as above)	44	Discriminates Siin from Shiin
45	B	(Same as above)	(Same as above)	45	Discriminates Dhaa from Taa
46	B	(Same as above)	(Same as above)	46	Discriminates Qaaf from Faa, and Saad from Daad
47	B	(Same as above)	(Same as above)	47	Discriminates Qaaf from Faa
48	E	Word Recognition: Choose the right word to describe a mode of locomotion	Recognizes a word that goes with a picture	48	Recognizes the word "YaHbuu" meaning "to crawl"
49	E	Recognize words in the child's environment	(Same as above)	49	Recognizes the word "Haafilah" meaning "bus"
50	E	Word recognition: Semantically related words	(Same as above)	50	Recognizes the word "YadHaku" meaning "to laugh"
51	E	Word recognition: Families of words	(Same as above)	51	Recognizes the word "Suuf" meaning "wool" as being associated to the picture of a lamb
52	E	Recognize derivational patterns based on the same root	(Same as above)	52	Recognizes the word "Ealam" meaning "flag", discriminated from other words of the same root
53	E	Recognize derivational patterns of words	(Same as above)	53	Recognizes the word "Hammaal" meaning "porter" discriminated from other similar-in-shape words
54	E	Word recognition: Choose the right word to describe a mode of locomotion	Identifies the word that goes with picture	54	Recognizes the word "yatawakka'" meaning "to lean against"
55	E	(Same as above)	(Same as above)	55	Recognizes the word "yaEaduu" meaning "to run"
56	E	Word recognition: Semantically related words and concepts	(Same as above)	56	Recognizes the word "wabar" meaning "camel's wool"
57	E	(Same as above)	(Same as above)	57	Recognizes the word "qaarib shiraaEii" meaning "sailboat"
58	E	(Same as above)	(Same as above)	58	Recognizes the word "Taa'ira Hawwaama" meaning "helicopter"
59	E	Visual discrimination of words in the child's environment	Chooses a picture that represents a word	59	Recognizes the picture of the sign for "danger"
60	E	(Same as above)	(Same as above)	60	Recognizes the picture associated with/related to "a hospital"

Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
61	E	(Same as above)	(Same as above)	61	Recognizes the picture which may be associated with "mail"
62	E	(Same as above)	(Same as above)	62	Recognizes the picture which may be related to "the library"
63	E	(Same as above)	(Same as above)	63	Recognizes the picture which may be related to "a restaurant"
64	E	(Same as above)	(Same as above)	64	Recognizes the picture which may be related to "a clinic"
65	E	Visual discrimination of words in the child's environment	Chooses a picture that represents a word	65	Recognizes the picture of gasoline station to be related to the sign of "No Smoking"
66	B	Distinguish between numerals used in the Western and Eastern Arab countries	Given a numeral used in the Western countries student identifies the corresponding one in the Eastern countries	66	Recognizes the numeral used in Eastern Arab countries that corresponds to the numeral 8 used in Western Arab countries
67	B	Know the Arabic alphabetical order	Given a series of ordered letters, student identifies the next letter	67	Recognizes the letter that comes next in order after a series of 4 ordered letters
68	B	Discriminate between sounds represented by different letters: i.e., "haa'" and "taa'"	Identifies the written form of a word when student hears the word	68	Recognizes the written form of the word "kitaabatun" when student hears the word and distinguishes it from "haa', which is similar in shape
69	B	Recognize diacritical and short-vowel signs	(Same as above)	69	Recognizes the written form of the word "aamana" after student listens to the word, and distinguishes "madda" from other diacritics and signs
70	A	Aural discrimination of sounds: "alif" as a vowel and as a carrier of hamza	(Same as above)	70	Recognizes the written form of the word "sa'ala" when the "alif" is a carrier of "hamza" after student listens to the word and distinguishes it from the word with an "alif" that has no "hamza"
71	E	Identify semantically related words and concepts	Chooses a word that completes the sentence meaningfully	71	Recognizes the word "diinaar" as the right one to complete the sentence: The word that refers to money is...
72	E	Recognize the letters of the alphabet that form words	Recognizes the number of letters that form a word	72	Specifies the number of letters in the word "al-mustaqbal" ("the future")
73	E	Choose the word denoting the sound of a specific animal	Recognizes the word that describes the sound of an animal	73	Identifies the word "Sahiil" that describes the voice of the horse
74	C	Recognize grammatical endings of nouns	Chooses the form with the right ending	74	Recognizes that the form "attiflu" ("child") is the right form when the word is used as a subject
75	C	Recognize proper ending of verb when preceded by a particle	Chooses the right ending of the verb preceded by one of the particles	75	Recognizes the form with the right ending of the verb "al9abu", when preceded by the particle "lum"
76	B	Recognize sounds represented by different letters or letter shapes	Chooses the word with the right letter shape in the context of the sentence	76	Recognizes that the word "9alaa" with "alif maq'suura" is the right form to be used in the sentence given
77	D	Recognize nominal and adjectival cases	Recognizes proper ending of adjective	77	Recognizes that the ending associated with the adjective is the "naSb" because the adjective is the predicate of the auxiliary verb "Kaana"
78	E	Identify idiomatic language connected with linguistic input	Chooses the correct answer completing a statement	78	Recognizes the expression to be used when "he visits a person that has recently come back from a trip or journey"

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Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
79	F	Extract information implicit in a text (inference)	Chooses the correct answer to a given question	79	Recognizes the expression appropriate as an answer to the statement and questions: "Your mother made the dough and lit the oven; what did she do next?"
80	F	Identify incongruent statements with respect to familiar facts	Identifies incorrect statements with respect to known facts	80	Recognizes the statement among other statements that is incorrect with respect to known facts
81	B	Discriminate sounds represented by different letters: different ways of writing the "hamza" according to how it is pronounced	Identifies the correct written form of the word when student hears the word	81	Recognizes the written form of the word "su'ila" ("was asked") when student hears the word
82	B	Identify diacritic signs used in known words	Identifies the sign used on a letter of a four-letter word	82	Specifies the letter in a four-letter word that has the "sukuun" sign
83	E	(Same as above)	(Same as above)	83	Specifies the letter in a four-letter word that has the "shaddha" sign
84	A	Pronunciation and aural discrimination of sound in the case of the definite article 'al assimilated with "sun" but not "moon" letters	Identifies the word in which "al" (the) is not pronounced	84	Recognizes one word in which "al" ("the") is pronounced (while in the other words it is not)
85	A	(Same as above)	Identifies the word in which "al" (the) is not pronounced	85	Recognizes one word in which "al" ("the") is not pronounced (while in the other words it is)
86	C	Recognize derivational analysis of related words--derived from the same root	Identifies the word that has a different root from the others	86	Recognizes the word that has a different root (when the others are of the same root)
87	C	(Same as above)	(Same as above)	87	Recognizes the word that has a different root among a group of words
88	C	Recognize the "sound" feminine plural	Identifies a word that represents (sound feminine plural) more than two of something	88	Recognizes the word (sound feminine plural) that represents more than two things
89	C	Recognize grammatical endings (of plural form)	Chooses the right form of noun	89	Recognizes the form of noun related to the "rafU" case of the plural form
90	C	Recognize agreement pattern in gender between noun and adjective	Recognizes adjective that goes with a noun	90	Recognizes the feminine adjective "Jamiilatun" that goes with the noun "Fataton" meaning "a girl"
91	C	Recognize agreement pattern in gender indefiniteness between noun and adjective	(Same as above)	91	Recognizes the masculine adjective form "FaaDilun" that goes with the noun "Rajulun" meaning "a man"
92	C	Recognize agreement pattern in gender between plural adjectives and plural nouns	Chooses the adjective that goes with the noun	92	Recognizes the plural adjective "Saadiqatun" that goes with the plural noun "nisaa'un" meaning women
93	C	Recognize agreement pattern in person, gender, and number between pronoun and verb	Chooses the verb that goes with a pronoun	93	Recognizes the right form of the verb "Banaytu" that goes with the first singular pronoun "Anaa"
94	C	Recognize knowledge of broken (irregular) plurals	Chooses the right form of the plural	94	Recognizes that the form "rijaalun" ("men") is the right plural of the noun "rajulun" ("man")
95	C	Recognize the (sound) plural form of feminine nouns	Chooses the correct form of the plural	95	Recognizes the sound feminine plural as the proper one
96	C	Recognize vowel mutations in some verbs	Chooses the right form of the verb	96	Recognizes that the form "qhafawtu" (I slept) is the one to be used
97	E	Identify idiomatic language connected with linguistic input	Chooses the correct answer completing a statement	97	Recognizes the expression to be used when "he greets a group of people"
98	C	Recognizes agreement in gender, person, and number between the verb and pronoun	Chooses the right form of pronoun that goes with given form of verb	98	Recognizes that the pronoun "anaa" (I) is the right form that goes with the verb "aktubu" meaning "I write"

Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
99	C	(Same as above)	(Same as above)	99	Recognizes that the pronoun "humaa" (they--dual) is the right form that goes with the verb "la9ibaa" meaning "the two of them played"
100	D	Sentence patterns	Chooses the right form of the negative particle for past time and tense of the verb	100	Recognizes the correct negative form to be used with the verb "read"
101	F	Sequence a group of scrambled words; word order	Chooses the appropriate grouping of words to form a meaningful sentence	101	Recognizes the meaningful grouping of words
102	D	Recognize basic communicative sentence patterns: The exclamation	Chooses the statement that gives the meaning of the given sentence	102	Given an exclamation sentence, student recognizes the meaning underlying exclamation
103	F	Identify incongruent statements with respect to familiar facts	Identifies which statement is correct with respect to known facts	103	Given four statements, identifies one which is correct
104	D	Understand non-simple statements: rationale of conjunctive elements	Chooses the option which gives the meaning of a non-simple statement	104	Recognizes the effect of the conjunctive element "wa'and" and chooses the statement which provides this effect
105	D	Understand non-simple sentences: rationale of the exceptive particle	(Same as above)	105	Recognizes the effect of the exceptive particle "illaa" meaning "except" and chooses the statement which agrees with the effect
106	F	Extract information implicit in a text (inference)	Chooses the correct answer to a given question	106	Recognizes the appropriate contextual answer to a statement followed by a question: "Samiir opened his bag and put his books in it; where did he go after that?"
107	F	Extract information implicit in a text on the basis of which inferences can be made	Chooses to mark "yes" or "no" as an answer to a question on information given	107	Chooses a "yes" answer to the question on two statements
108	F	(Same as above)	(Same as above)	108	Chooses a "no" answer to the question on the information given
109	F	(Same as above)	Chooses one word as an answer to the question on information given	109	Chooses one word "Al-ghazaal" as an answer to the question requiring an inference from the information given
110	F	(Same as above)	Chooses one option on the basis of the information given	110	Chooses one option as an answer to the question
111	F	Extract information explicit in a text	Given a short text, student answers questions about information in the text	111	Recognizes the information in a text that is appropriate for answering a question about the text
112	F	(Same as above)	(Same as above)	112	Recognizes the information in the text needed to answer a question about the text
113	F	Extract information stated or implied in a text; giving main ideas in a short text	Chooses the right answer to a question on a short text	113	Given a short text followed by three questions in each, the student identifies the right answer based on information in the text
114	F	(Same as above)	(Same as above)	114	Given a short text followed by three questions in each, the student identifies the right answer based on information in the text
115	F	(Same as above)	(Same as above)	115	Given a short text followed by three questions in each, the student identifies the right answer based on information in the text
116	F	Extract information and ideas implicit or explicit in a text	Chooses the right answer to a question on the text	116	Given a short text, but slightly longer than the preceding one, the student identifies the right answer to a question

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Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
117	F	(Same as above)	(Same as above)	117	Given a short text, but slightly longer than the preceding one, the student identifies the right answer to a question
118	F	(Same as above)	(Same as above)	118	Given a short text, but slightly longer than the preceding one, the student identifies the right answer to a question
119	F	(Same as above)	(Same as above)	119	Given a short text, but slightly longer than the preceding one, the student identifies the right answer to a question
120	F	(Same as above)	(Same as above)	120	Given a short text, but slightly longer than the preceding one, the student identifies the right answer to a question
121	E	Recognize nominal and adjectival forms from given basic form of the verb (word families)	Identifies the word (derived noun) that has the same rhyme as the one given	121	Recognizes that one of the four words given has the same rhyme as the one given (nominal derivative)
122	E	(Same as above)	(Same as above)	122	Recognizes that one of the four words given has the same rhyme as the one given (nominal derivative)
123	C	Recognize the broken plural	Identifies a word that represents more than two things	123	Recognizes the word (broken plural) that represents more than two, among other words similar in sound and written shape
124	C	Discriminate between the singular and the plural forms	Identifies the word (noun) representing one thing (singular)	124	Recognizes the word representing one thing among other words having similar sounds but which are plural in meaning
125	B	Recognize letters and symbols which are written but not pronounced: e.g., "aliful-jamaa9a"	Identifies the word written correctly among four given words	125	Recognizes the word "la9ibuu" ("they played") written correctly while the other given words are not
126	B	Recognize letters and symbols which are written but not pronounced "aliful-jamaa'a"	Chooses the word that is <u>incorrectly</u> written	126	Chooses the word incorrectly written though it is pronounced and looks like the others, but "aliful-jamaa9a" should not have been used
127	A	Aural discrimination of intonation patterns	Specifies punctuation mark appropriate to a sentence heard with certain intonation	127	After listening to a question, identifies the question mark as the appropriate ending punctuation
128	A	(Same as above)	(Same as above)	128	After listening to an exclamatory sentence, identifies the exclamation mark as the appropriate ending punctuation
129	F	Supply a missing element (a word) and deduce the meaning of the element from the context	Chooses a word that completes the sentence meaningfully	129	Recognizes the word (meaning "coat") as the right choice to complete the sentence: The tailor makes...
130	D	Recognize the time association with negative statements	Recognizes the adverb of time to be associated with the negative statement	130	Recognizes the time to be associated with the type of negative statement given as that of the future
131	C	Recognize agreement pattern in gender and number between adjective and noun	Chooses the right form of adjective that goes with a given form of noun (plural feminine)	131	Recognizes that the right form of adjective is the plural feminine
132	D	Know the influence of "particles" in nominal sentences	Recognizes proper ending of predicate	132	Recognizes that the proper ending associated with the predicate of the governing particle "inna and its sisters" is the "raf9"

Item #	Obj. Area	Objective	Specific Task in the Item	Item #	Specific Response Required
133	D	Recognize the agreement in gender and number (noun/verb)	Chooses the right form of verb	133	Recognizes that the verb "waSal" (arrived) is the right form to precede the noun, although the noun is dual and the verb is singular in form
134	C	Grammatical endings of dual form in the "raf9" case	Chooses the right form of noun	134	Recognizes the form of noun related to the "naSb" case of the dual form
135	C	Recognize agreement in gender, person, and number between the verb and pronoun	Chooses the right form of pronoun that goes with given form of verb	135	Recognizes that the pronoun "hum" (they--masculine plural) is the right form that goes with the verb "katabuu" meaning "they wrote"
136	C	Recognize proper ending of verb when preceded by a particle	Chooses the right ending of the option verb	136	Recognizes the verb with the right ending when it follows the particle "laa"
137	C	Derive the plural form	Chooses the right form of plural	137	Recognizes the "regular plural" form of the word "musaafirnun" ("travellers")
138	E	Recognize the word denoting a certain baby animal	Chooses the word that describes the name of the baby animal	138	Identifies the word that gives the name of a baby lion
139	D	Identify patterns of questions and appropriate answers: Yes-No questions	Chooses the correct answer to a given question	139	Recognizes the appropriate answer to the type of question: "Where does the child sleep?"
140	D	Identify patterns of questions and appropriate answers: Information questions	(Same as above)	140	Recognizes the appropriate answer to the question: "Do you feel cold?"
141	C	Recognize proper ending of the verb when not preceded by a particle	Chooses the right ending of the verb	141	Recognizes the verb with the right ending when it is not preceded by a particle
142	C	Recognize passive and active verb forms	Chooses the right form of the verb (active form) as required in the context	142	Recognizes that the active form of the verb is to be used since it is followed by a subject and object
143	C	Passive and active verb forms	Chooses the right form of the verb (passive)	143	Recognizes that the passive form of the verb is the one that fits
144	C	Recognize vowel mutations in some verbs	Chooses the right form of the verb	144	Recognizes that the form "naSilu" (we arrive) is the right one
145	C	Identify patterns of adjectival comparisons using the feminine	Recognizes agreement between the adjective and the noun (feminine)	145	Chooses the word (adjective) that agrees with the noun (feminine form) as part of a context
146	E	Recognize the passive form of the verb which rhymes with another passive verb (metalinguistic term)	Identifies the verb that has the same rhyme as the one given (in the passive form)	146	Recognizes that one of the 4 verbs given has the same rhyme as the one given (in the passive form)
147	E	Recognize the word denoting a certain baby animal	Chooses the word that describes the name of the baby animal	147	Identifies the name for a lamb
148	D	Recognize the time association with negative statements	Recognizes the adverb of time to be associated with the negative statement	148	Recognizes the time to be associated with this type of negative statement as one in the past
149	B	Discriminate sounds represented by different letters: "Alif mamduuda" and "alif maqsuura" and "alif carrying hamza"	Identifies the correct written form of the word when he hears the word	149	Recognizes the written form of the word "sabaa" ("captured") where the "alif maq'suura" is used, when he hears the word
150	E	Use dictionaries and other reference material	Identifies name coming first in order in the telephone directory	150	Given 4 names, identifies which comes first in the telephone directory
151	C	Identify patterns of adjectival comparisons using the masculine	Recognizes agreement pattern between adjectival comparison form and given noun	151	Chooses the word (adjective) that agrees with given noun as provided by the sentence context
152	C	Recognize proper ending of verb when preceded by a particle	Chooses the right ending of the option verb	152	Recognizes the verb with the right ending when it follows the particle "len"

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Item #	Obj Area	Objective	Specific Task in the Item	Item #	Specific Response Required
153	E	Use dictionaries and other reference material	Specifies type of reference material utilized for word meaning	153	Given a number of reference materials, specifies which one can be used to look for the meaning of words
154	A	Aural discrimination of intonation patterns	Specifies punctuation mark appropriate to a sentence heard with certain intonation	154	After listening to a declarative sentence, identifies the full stop as the appropriate ending punctuation
155	B	Understand functions of punctuation marks	Identifies punctuation mark to be placed at the end of a sentence	155	Given a declarative statement, recognizes it should end with a full stop
156	E	Recognize semantically related words and concepts: location and direction	Chooses the option (direction) which completes the statement	156	Recognizes that the West will be at his back when he faces the sun in the morning
157	E	(Same as above)	(Same as above)	157	Recognizes that the East will be to his right when he stands facing a rap
158	E	Recognize semantically related words and concepts: used in agriculture	Chooses an option that gives the meaning of a term used in agriculture	158	Recognizes the meaning of the term used in agriculture ("wheat harvest")
159	E	Recognize semantically related words and concepts: used in health	Chooses an option that gives the meaning of a term used in health	159	Recognizes the meaning of the term used in health ("inoculation")
160	D	Recognize basic communicative sentence patterns: The affirmative statement	Chooses the statement that gives the meaning of the given sentence	160	Given an affirmative statement, student recognizes the underlying meaning

APPENDIX C

Technical Data on the Arabic Reading Test Battery

Table C1

Subtest Correlations

		Subtest							
		1	2	3	4	5	6	7	8
		1	2	3	4				
Grade 1:	Subtest 1	---	.66	.62	.62				
(N = 242)	" 2		---	.62	.61				
	" 3			---	.68				
	" 4				---				
			2	3	4	5	6		
Grade 2:	Subtest 2		---	.69	.72	.70	.59		
(N = 611)	" 3			---	.66	.62	.48		
	" 4				---	.68	.55		
	" 5					---	.67		
	" 6						---		
				3	4	5	6	7	
Grade 3:	Subtest 3			---	.61	.66	.60	.53	
(N = 247)	" 4				---	.69	.63	.59	
	" 5					---	.72	.70	
	" 6						---	.68	
	" 7							---	
				3	4	5	6	7	8
Grade 4:	Subtest 3			---	.60	.56	.59	.57	.50
(N =323)	" 4				---	.65	.67	.64	.60
	" 5					---	.71	.73	.71
	" 6						---	.77	.70
	" 7							---	.72
	" 8								---

Table C2

Test Analysis Report Form
Total Test
Jordan - December 1986

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
111-114							1	99.7
106-110							5	98.1
101-105							14	93.8
96-99							34	83.1
91-95			2	99.7	3	98.8	26	75.0
86-90			8	98.4	3	97.6	23	67.8
81-85			9	96.9	28	86.1	32	57.8
76-80			22	93.3	23	76.7	31	48.1
71-75	3	98.7	39	86.9	22	67.8	16	43.1
66-70	3	97.5	24	83.0	33	54.3	29	34.1
61-65	2	96.7	43	75.9	23	44.9	30	24.7
56-60	3	95.4	52	67.4	21	36.3	22	17.8
51-55	1	95.0	55	58.4	21	27.8	16	12.8
46-50	0	95.0	73	46.4	9	24.1	17	7.5
41-45	6	92.5	63	36.1	27	13.1	8	5.0
36-40	13	87.1	64	25.6	13	7.8	4	3.7
31-35	14	81.3	51	17.2	9	4.1	6	1.9
26-30	39	65.0	36	11.3	7	1.2	2	1.2
21-25	75	33.7	38	5.1	3	0.0	2	0.6
16-20	49	13.3	20	1.8			0	0.6
11-15	25	2.9	7	0.7			1	0.3
6-10	5	0.8	2	0.3			0	0.3
0-5	2	0.0	2	0.0			1	0.0

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	25.1	47.8	60.9	74.2
Standard Dev	11.8	17.6	16.6	19.9
Median	22.9	47.0	63.4	76.3
Max Possible	80.0	100.0	100.0	120.0

Table C3

Test Analysis Report Form
Total Test
Jordan - December 1987

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
111-114							8	97.2
106-110							19	90.5
101-105							37	77.5
96-99					2	99.1	26	68.4
91-95			3	99.5	14	93.0	40	54.4
86-90			6	98.4	13	87.4	28	44.6
81-85			20	94.9	23	77.4	19	37.9
76-80			20	91.4	24	67.0	24	29.5
71-75	1	99.5	39	84.6	32	53.0	17	23.5
66-70	1	99.0	45	76.7	24	42.6	13	18.9
61-65	2	97.9	61	66.0	18	34.8	14	14.0
56-60	1	97.4	78	52.3	18	27.0	9	10.9
51-55	4	95.4	65	40.9	21	17.8	8	8.1
46-50	7	91.8	64	29.6	16	10.9	6	6.0
41-45	13	85.1	71	17.2	11	6.1	5	4.2
36-40	30	69.7	43	9.6	8	2.6	7	1.8
31-35	34	52.3	24	5.4	2	1.7	3	0.7
26-30	37	33.3	18	2.3	1	1.3	1	0.4
21-25	39	13.3	8	0.9	2	0.4	1	0.0
16-20	21	2.6	5	0.0	1	0.0		
11-15	3	1.0						
6-10	1	0.5						
0-5	1	0.0						

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	31.1	54.5	66.9	83.5
Standard Dev	10.6	14.9	16.6	19.8
Median	30.0	54.3	69.7	88.1
Max Possible	80.0	100.0	100.0	120.0

Table C4

Test Analysis Report Form
Core Test
Jordan - December 1986

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
39-40					3	98.8	4	98.7
37-38	1	99.6	4	99.3	8	95.5	19	92.8
35-36	1	99.2	7	98.2	23	86.1	41	80.0
33-34	4	97.5	16	95.6	35	71.8	36	68.8
31-32	2	96.7	42	88.7	25	61.6	51	52.8
29-30	2	95.8	62	78.5	42	44.5	36	41.6
27-28	0	95.8	52	70.0	28	33.1	47	26.9
25-26	1	95.4	54	61.1	24	23.3	31	17.2
23-24	2	94.6	61	51.1	22	14.3	14	12.8
21-22	3	93.3	52	42.6	8	11.0	13	8.7
19-20	7	90.4	43	35.6	9	7.3	6	6.9
17-18	9	86.7	51	27.2	4	5.7	7	4.7
15-16	21	77.9	47	19.5	5	3.7	5	3.1
13-14	36	62.9	50	11.3	4	2.0	4	1.9
11-12	52	41.2	29	6.6	4	0.4	2	1.2
9-10	31	28.3	18	3.6	0	0.4	0	1.2
7- 8	33	14.6	8	2.3	1	0.0	1	0.9
5- 6	18	7.1	8	1.0			2	0.3
3- 4	14	1.2	4	0.3			0	0.3
0- 2	3	0.0	2	0.0			1	0.0

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	11.9	21.6	28.3	29.1
Standard Dev	6.1	7.3	6.0	6.3
Median	11.2	22.3	29.0	30.1
Max Possible	40.0	40.0	40.0	40.0

Table C5

Test Analysis Report Form
Core Test
Jordan - December 1987

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
39-40					14	93.9	41	85.6
37-38	1	99.5	6	98.9	18	86.1	48	68.8
35-36	0	99.5	17	96.0	23	76.1	45	53.0
33-34	1	99.0	29	90.9	22	66.5	36	40.4
31-32	1	98.5	52	81.8	32	52.6	29	30.2
29-30	4	96.4	49	73.2	26	41.3	31	19.3
27-28	3	94.9	68	61.2	21	32.2	17	13.3
25-26	5	92.3	64	50.0	21	23.0	9	10.2
23-24	4	90.3	55	40.4	20	14.3	4	8.8
21-22	6	87.2	60	29.8	11	9.6	8	6.0
19-20	12	81.0	53	20.5	7	6.5	4	4.6
17-18	27	67.2	34	14.6	6	3.9	6	2.5
15-16	37	48.2	31	9.1	2	3.0	1	2.1
13-14	24	35.9	15	6.5	2	2.2	2	1.4
11-12	34	18.5	15	3.9	2	1.3	3	0.4
9-10	21	7.7	13	1.6	1	0.9	1	0.0
7- 8	9	3.1	5	0.7	1	0.4		
5- 6	3	1.5	4	0.0	1	0.0		
3- 4	3	0.0						
0- 2								

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	15.0	24.0	29.2	32.6
Standard Dev	5.6	6.8	6.6	6.2
Median	14.7	24.5	30.1	34.1
Max Possible	40.0	40.0	40.0	40.0

Table C6

Test Analysis Report Form
Total Test
Morocco - January 1987

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
111-114								
106-110								
101-105								
96-99							6	91.4
91-95			1	99.4	2	98.1	1	90.0
86-90			5	96.6	8	90.5	8	78.6
81-85			16	87.4	10	81.0	7	68.6
76-80			30	70.3	9	72.4	12	51.4
71-75			20	58.9	17	56.2	16	28.6
66-70			20	47.4	16	41.0	8	17.1
61-65	6	95.6	19	36.6	14	27.6	4	11.4
56-60	11	87.4	14	28.6	11	17.1	5	4.3
51-55	20	72.6	18	18.3	9	8.6	1	2.9
46-50	14	62.2	13	10.9	5	3.8	1	1.4
41-45	13	52.6	6	7.4	1	2.9	1	0.0
36-40	18	39.3	5	4.6				
31-35	14	28.9	4	2.3				
26-30	11	20.7	2	1.1				
21-25	13	11.1	1	0.6				
16-20	6	6.7	1	0.0				
11-15	1	5.9						
6-10								
0-5								

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	39.3	64.5	68.2	75.7
Standard Dev	14.4	15.0	12.5	11.7
Median	40.0	66.4	69.1	75.2
Max Possible	80.0	100.0	100.0	120.0

Table C7

Test Analysis Report Form
Core Test
Morocco - January 1987

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
39-40								
37-38					3	97.1	1	98.6
35-36			10	94.3	12	85.7	2	95.7
33-34			13	86.9	13	73.3	15	74.3
31-32			21	74.9	12	61.9	16	51.4
29-30	2	98.5	25	60.6	15	47.6	18	25.7
27-28	14	88.1	24	46.9	17	31.4	9	12.9
25-26	11	80.0	20	35.4	8	23.8	4	7.1
23-24	15	68.9	20	24.0	9	15.2	1	5.7
21-22	15	57.8	14	16.0	9	6.7	2	2.9
19-20	8	51.9	11	9.7	4	2.9	1	1.4
17-18	7	46.7	8	5.1	2	1.0	1	0.0
15-16	15	35.6	1	4.6	0	1.0		
13-14	14	25.2	4	2.3	0	1.0		
11-12	11	17.0	1	1.7	1	0.0		
9-10	5	13.3	2	0.6				
7- 8	9	6.7	0	0.6				
5- 6	4	3.7	1	0.0				
3- 4	3	1.5						
0- 2	2	0.0						

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	17.6	26.2	28.5	30.0
Standard Dev	7.1	5.8	5.2	3.6
Median	17.9	26.9	28.8	30.4
Max Possible	40.0	40.0	40.0	40.0

Table C8

Test Analysis Report Form
Total Test
Tunisia - January 1987

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
111-114							2	97.1
106-110							1	95.7
101-105							2	92.9
96-99							5	85.7
91-95							6	77.1
86-90			1	99.6			8	65.7
81-85			8	96.5			10	51.4
76-80			12	91.9	7	88.3	15	30.0
71-75			19	84.6	1	86.7	12	12.9
66-70	1	98.5	16	78.5	5	78.3	4	7.1
61-65	2	95.4	24	69.2	10	61.7	3	2.9
56-60	3	90.8	23	60.4	7	50.0	1	1.4
51-55	2	87.7	28	49.6	9	35.0	1	0.0
46-50	3	83.1	28	38.8	8	21.7		
41-45	8	70.8	23	30.0	1	20.0		
36-40	14	49.2	30	18.5	4	13.3		
31-35	7	38.5	28	7.7	5	5.0		
26-30	7	27.7	7	5.0	2	1.7		
21-25	5	20.0	10	1.2	1	0.0		
16-20	3	15.4	1	0.8				
11-15	6	6.2	0	0.8				
6-10	3	1.5	2	0.0				
0-5	1	0.0						

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	33.6	51.4	54.9	82.0
Standard Dev	14.5	16.1	14.4	12.1
Median	35.6	50.8	55.5	80.2
Max Possible	80.0	100.0	100.0	120.0

Table C9

Test Analysis Report Form
Core Test
Tunisia - January 1987

	Grade 1		Grade 2		Grade 3		Grade 4	
Raw Score X	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval	f	Percentile Rank of Lower Limit of Interval
39-40							3	95.7
37-38							4	90.0
35-36			2	99.2	2	96.7	11	74.3
33-34	1	98.5	10	95.4	2	93.3	13	55.7
31-32	0	98.5	25	85.8	5	85.0	21	25.7
29-30	1	96.9	20	78.1	12	65.0	11	10.0
27-28	2	93.8	26	68.1	8	51.7	5	2.9
25-26	3	89.2	31	56.2	5	43.3	2	0.0
23-24	0	89.2	23	47.3	12	23.3		
21-22	2	86.2	28	36.5	2	20.0		
19-20	4	80.0	15	30.8	5	11.7		
17-18	4	73.8	16	24.6	2	8.3		
15-16	6	64.6	22	16.2	3	3.3		
13-14	8	52.3	17	9.6	0	3.3		
11-12	7	41.5	11	5.4	0	3.3		
9-10	9	27.7	5	3.5	1	1.7		
7- 8	8	15.4	3	2.3	0	1.7		
5- 6	1	13.8	3	1.2	1	0.0		
3- 4	6	4.6	3	0.0				
0- 2	3	0.0						

	Grade 1	Grade 2	Grade 3	Grade 4
Mean Score	13.0	22.3	25.3	32.4
Standard Dev	7.2	7.2	5.8	3.1
Median	12.1	23.2	26.0	32.2
Max Possible	40.0	40.0	40.0	40.0

Table C10

Deltas and R-Biserials
Jordan - December 1986

	Core Test				Total Test			
Delta	G1	G2	G3	G4	G1	G2	G3	G4
19.0 up								
18.0-18.9	3	2			4	2		
17.0-17.9	5	1	2	1	9	1	4	1
16.0-16.9	4	1	0	0	8	10	2	3
15.0-15.9	13	2	0	0	23	11	3	4
14.0-14.9	7	6	0	0	20	19	5	10
13.0-13.9	5	4	6	6	7	11	17	18
12.0-12.9	2	7	4	4	8	19	19	21
11.0-11.9	1	4	5	5	1	8	13	21
10.0-10.9		7	3	5		10	13	12
9.0-9.9		4	5	4		5	7	12
8.0-8.9		1	6	4		1	7	6
7.0-7.9		1	7	7		3	7	8
6.0-down				3			1	3
Total	40	40	40	40	80	100	100	120
Mean	15.3	12.6	10.1	10.2	15.1	13.2	11.7	11.6
S.D.	1.6	2.5	2.8	2.6	1.6	2.3	2.6	2.4
r_{bis}								
.90-.99			2	1			2	1
.80-.89			2	3			1	0
.70-.79	2	8	5	6	2	8	9	12
.60-.69	6	9	9	9	9	19	24	24
.50-.59	7	7	7	9	15	31	24	40
.40-.49	11	9	9	6	20	19	15	18
.30-.39	10	5	5	5	18	13	13	12
.20-.29	1	0	0	1	10	5	8	7
.10-.19	2	2	1		3	2	2	3
.00-.09	1				2	2	0	2
Negative					1	1	2	1
Total	40	40	40	40	80	100	100	120
Mean	.46	.53	.55	.58	.42	.50	.50	.51
S.D.	.15	.16	.15	.15	.16	.16	.18	.16

Table C11

Deltas and R-Biserials
Jordan - December 1987

Delta	Core Test G1	G2	G3	G4	Total Test G1	G2	G3	G4
19.0 up								
18.0-18.9	1	1			1	1		
17.0-17.9	2	0			3	0		
16.0-16.9	7	0			12	2		2
15.0-15.9	9	3	1		16	9	1	3
14.0-14.9	3	4	2		12	14	8	7
13.0-13.9	9	7	1		15	24	9	6
12.0-12.9	5	4	8	5	13	13	19	16
11.0-11.9	3	5	3	4	5	10	13	18
10.0-10.9	0	6	5	4	2	11	19	21
9.0-9.9	0	4	7	8	0	7	15	18
8.0-8.9	0	5	3	6	0	7	4	14
7.0-7.9	1		9	2	1	0	11	4
6.0-down				3		1		3
Total	40	40	40	40	80	100	100	120
Mean	14.4	11.8	10.2	8.9	14.2	12.4	11.0	10.6
S.D.	2.1	2.5	2.3	2.2	1.9	2.3	2.1	2.4
r_{bis}								
.90-.99		1	1	8		1	1	8
.80-.89		1	2	2		0	2	3
.70-.79		3	7	9		2	12	18
.60-.69	4	6	9	11	4	7	22	26
.50-.59	5	12	14	3	17	32	21	30
.40-.49	11	11	5	5	18	27	25	10
.30-.39	10	4	1	1	15	18	10	17
.20-.29	6	0	1	0	8	5	4	2
.10-.19	4	1		0	10	2	2	2
.00-.09		1		1	7	4	1	1
Negative					1	2		3
Total	40	40	40	40	80	100	100	120
Mean	.39	.52	.60	.61	.36	.43	.52	.53
S.D.	.14	.15	.13	.15	.17	.16	.16	.19

Table C12

Deltas and R-Biserials
Morocco - January 1987

Delta	Core Test G1	Core Test G2	Core Test G3	Core Test G4	Total Test G1	Total Test G2	Total Test G3	Total Test G4
19.0 up	1	1			1	1		
18.0-18.9	2	0			3	0	1	1
17.0-17.9	1	0	0	1	2	0	2	6
16.0-16.9	4	3	0	0	4	6	0	3
15.0-15.9	5	0	3	2	5	1	5	8
14.0-14.9	3	5	2	1	11	8	5	5
13.0-13.9	11	2	3	2	19	8	8	11
12.0-12.9	2	3	4	3	9	15	10	17
11.0-11.9	4	4	3	3	10	13	15	14
10.0-10.9	4	7	5	7	9	16	12	16
9.0-9.9	2	5	7	5	4	10	16	11
8.0-8.9	1	2	2	1	3	11	7	4
7.0-7.9		5	6	7		7	11	12
6.0-down		3	0	2		3	1	3
Total	40	40	40	40	80	100	100	120
Mean	13.7	11.1	10.2	9.7	13.1	11.2	10.7	11.3
S.D.	2.6	3.2	2.8	3.0	2.4	2.7	2.8	3.2
r_{bis}								
.90-.99	1	1	5	6	2	2	7	9
.80-.89	4	1	0	1	3	2	0	0
.70-.79	2	4	3	0	13	12	6	7
.60-.69	10	8	5	4	14	12	10	6
.50-.59	5	8	10	5	12	25	21	20
.40-.49	10	9	6	5	15	19	17	13
.30-.39	4	4	6	7	11	15	23	20
.20-.29	0	3	3	6	3	5	9	16
.10-.19	0	2	1	3	4	5	2	16
.00-.09	3	0	1	1	0	2	3	8
Negative	1	0	0	2	3	1	2	5
Total	40	40	40	40	80	100	100	120
Mean	.52	.51	.48	.37	.50	.49	.43	.35
S.D.	.21	.16	.15	.21	.21	.18	.18	.22

Table C13

Deltas and R-Biserials
Tunisia - January 1987

Delta	Core Test G1	Core Test G2	Core Test G3	Core Test G4	Total Test G1	Total Test G2	Total Test G3	Total Test G4
19.0 up	6	3	2		7	3	2	
18.0-18.9	1	0	0	1	2	0	3	2
17.0-17.9	6	0	0	1	7	1	0	4
16.0-16.9	5	3	2	0	6	8	7	3
15.0-15.9	4	2	4	3	5	5	8	10
14.0-14.9	3	1	1	0	6	14	9	6
13.0-13.9	3	7	2	0	12	16	12	6
12.0-12.9	5	4	5	1	17	18	15	8
11.0-11.9	5	5	3	2	9	12	11	12
10.0-10.9	2	6	6	2	5	10	11	12
9.0-9.9		5	5	3	4	7	10	12
8.0-8.9		3	2	6		3	3	12
7.0-7.9			4	4		0	5	9
6.0-down			1	1		1	1	2
Total	40	40	40	40	80	100	100	120
Mean	15.3	12.4	11.3	8.7	14.1	12.8	12.4	10.5
S.D.	3.0	3.2	3.6	3.5	2.9	2.7	3.0	3.5
r_{bis}								
.90-.99	7	4	5	17	7	5	5	22
.80-.89	6	1	1	1	5	0	0	2
.70-.79	8	5	4	4	11	3	7	7
.60-.69	7	13	4	7	14	19	11	17
.50-.59	2	8	9	3	12	30	22	19
.40-.49	8	7	7	1	17	20	15	17
.30-.39	1	0	3	0	7	9	16	12
.20-.29	0	0	2	4	4	3	6	6
.10-.19	0	2	5	1	2	5	10	7
.00-.09	0	0	0	1	1	3	0	6
Negative	1	0	0	1		3	8	5
Total	40	40	40	40	80	100	100	120
Mean	.63	.57	.48	.52	.55	.46	.40	.43
S.D.	.20	.14	.19	.26	.18	.19	.24	.23

APPENDIX D

Questionnaires for Teachers, Parents, and Other Adults

TEACHER QUESTIONNAIRE

1. Please indicate what grade this class is in. Grade: 1__ 2__ 3__ 4__

2. Please give the number of children in the class. Number: _____

3. Please indicate how many years you have been teaching. (Please check one)
   - ___ This is my first year
   - ___ More than 1 but less than 6
   - ___ At least 6 but less than 10
   - ___ 10 years or more

4. Are you familiar with *TV program AL MANAAHIL?* Yes__ No__

5. How many half-hour programs of *AL MANAAHIL* have you seen? (Please check one)
   - ___ I haven't seen any
   - ___ I've seen 1 or 2
   - ___ I've seen more than 2 but less than 10
   - ___ I've seen 10 or more

6. How do you feel about the TV series *AL MANAAHIL*? (Please check one)
   - ___ I like it very much
   - ___ I like it
   - ___ I'm not sure
   - ___ I dislike it
   - ___ I dislike it very much

7. Please give your opinion of the overall effect of *AL MANAAHIL* on children. (Please check one)
   - ___ Very Positive
   - ___ Positive
   - ___ Not Sure
   - ___ Negative
   - ___ Very negative

8. Please give your opinion of the effect of *AL MANAAHIL* on the reading skills of your students. (Please check one)
   - ___ Very Positive
   - ___ Positivee
   - ___ Have no opinion
   - ___ Negative
   - ___ Very Negative

9. Please give your opinion of the effect of *AL MANAAHIL* on the children's understanding and appreciation of Arabic culture and tradition. (Please check one)
   - ___ Very Positive
   - ___ Positive
   - ___ Not sure
   - ___ Negative
   - ___ Very Negative

10. Please indicate what kind of feedback you have had from parents about *AL MANAAHIL*. (Please check one)
    - ___ Very Positive
    - ___ Positive
    - ___ Have had no feedback
    - ___ Negative
    - ___ Very negative?

(Please turn page over)

12. How do you think the children feel about *AL MANAAHIL*? (Please check one)
    ___ They like it very much.
    ___ They like it somewhat.
    ___ They neither like it nor dislike it.
    ___ They dislike it.
    ___ They dislike it very much.

13. Please indicate what effect *AL MANAAHIL* has had on your teaching? (Please check one)
    ___ Very positive
    ___ Positive
    ___ Neither positive nor negative
    ___ Negative
    ___ Very negative

14. Please give one or two examples of ways *AL MANAAHIL* has been helpful to you.

15. Please give your opinions of the strengths and weaknesses of the *AL MANAAHIL* TV series.

STRENGTHS:

WEAKNESSES:

THANK YOU FOR YOUR ASSISTANCE IN THIS STUDY.

AL MANAAHIL QUESTIONNAIRE

1. Please indicate which of the following are true for you. (Check all that apply)
   - ____ Parent
   - ____ Primary School Teacher
   - ____ Secondary/College Instructor
   - ____ Graduate Student
   - ____ Undergraduate Student
   - ____ Reading Instructor
   - ____ Other (_____)

2. Do you have any young children - ages 5 to 9? Yes ____ No ____

3. Are you familiar with the TV program *AL MANAAHIL?* Yes ____ No ____

4. Do you watch *AL MANAAHIL* with your children? Yes ____ No____

5. How many half-hour programs of *AL MANAAHIL* have you seen? (Please check one)
   - ____ I haven't seen any
   - ____ I've seen 1 or 2
   - ____ I've seen more than 2 but less than 10
   - ____ I've seen 10 or more

6. How do you feel about the TV series *AL MANAAHIL?* (Please check one)
   - ____ I like it very much
   - ____ I like it
   - ____ I'm not sure
   - ____ I dislike it
   - ____ I dislike it very much

7. Please give your opinion of the overall effect of *AL MANAAHIL* on children. (Please check one)
   - ____ Very Positive
   - ____ Positive
   - ____ Not Sure
   - ____ Negative
   - ____ Very negative

8. Please give your opinion of the effect of *AL MANAAHIL* on the reading skills of children in Jordan. (Please check one)
   - ____ Very Positive
   - ____ Positive
   - ____ Not Sure
   - ____ Negative
   - ____ Very negative

9. Please give your opinion of the effect of *AL MANAAHIL* on the children's understanding and appreciation of Arabic culture and tradition. (Please check one)
   - ____ Very Positive
   - ____ Positive
   - ____ Not Sure
   - ____ Negative
   - ____ Very negative

(Please turn page over)

10. What kinds of opinions have you heard from your associates about *AL MANAAHIL?* (Please check one)
    - _____ Very Positive
    - _____ Positive
    - _____ Not Sure
    - _____ Negative
    - _____ Very negative

11. How do you think children feel about *AL MANAAHIL?* (Please check one)
    - _____ They like it very much
    - _____ They like it somewhat
    - _____ They neither like it nor dislike it
    - _____ They dislike it
    - _____ They dislike it very much

12. Please comment on what you see as the strengths and weaknesses of the *AL MANAAHIL* TV series.

STRENGTHS:

WEAKNESSES:

THANK YOU FOR YOUR ASSISTANCE IN THIS STUDY.

APPENDIX E

Test Administration Reports

A. Report from Country 1

The Arabic Reading Skills test was administered from January 20 through February 15, 1987, following the guidelines given to me by Dr. Richard Murphy, the project's Testing Director, during the visit he made in late December 1986. The testing was carried out following an official authorization issued by the Ministry of Education on January 20, 1987. As was originally agreed upon, the testing was done in two schools. The selection of these schools was made after a series of interviews with school principals. The major selection criterion that was applied was the extent to which the schools were representative of the general school population.

School #01 was composed of children of employed parents with less than average income. There was about an average success rate in primary school ceritificate (by reference to the national average). The class size for School #01 was from 21 to 37.

School #02 was composed of children whose parents were generally literate with average income. They achieved about 15 points above the average success rate in primary school certificate. The class size of School #02 was from 25 to 34.

The training was administered by a Professor of educationlal psychology at the University, a member of the project's advisory committee, to the testers (all highly qualified Arabic teachers). The testing was carried out by the same team in both schools. The school teachers were not involved in the testing. Their role was limited to helping with discipline.

In order to ensure maximum reliability, all the testing took place in the mornings in the Arabic classes.

Some general observations about the test follow:

1. The test was difficult for first graders (compared with the others).
2. In School #01 the children had more difficulty with the test than the corresponding children in School #02.
3. The testers found it necessary to resort to Arabic language of the country to clarify the instructions (instructions only, of course).
4. The lack of vowel diacritics contributed to the difficulty of the items, especially for first and second graders.
5. Some letters and numbers were still unknown to the first graders in both schools. They had not been covered yet.
6. There were children who were repeaters (repeating the grade level).
7. It was difficult for most children to report their exact birth dates. In spite of our serious attempts, we could not get the exact dates for all the testers.
8. Some of the children tested were taken by their teachers to have learning difficulties. These children did not have any special treatment in the school or during the test.
9. Some of the questions were left unanswered because they were not understood or because of the time constraints.
10. The 2 first grades that were tested in School #01 were not found to be of equal standards.

In spite of the above difficulties, the test was judged to be an interesting and enjoyable experience for the children and their teachers. Both expressed the wish of having access to more similar materials. No major incidents or deviations were recorded, and it can safely be said that the testing took place in the BEST conditions possible.

B. Report from Country 2

After a delay of about five weeks due to the late arrival of the three parcels sent by Dr. Richard Murphy and after their retrieval from Customs by the end of the second week of January, another week was spent in presenting the whole project to the primary school authorities for final acceptance. Actual testing took place between January 19 and 31, 1987. It was totally monitored in two schools by assistants of one of the advisory committee members.

1. A governmental primary school where we tested all the five second year classes and two third and two fourth year classes with no problems. We tried to test a first year class and then we realized that they had only seen 7 letters in class and that that situation is general in the whole country. We managed to go through some of the first parts of the test but I do not think that one should or could use the results objectively. The children were almost as a group incapable of any actual reading.
2. A private primary school (partly run by the White Sisters) which caters to a more favored part of the population of the country. This choice was necessitated by our first year results in School #01 which can be definitely considered to represent the average primary school in a "poor" urban situation. This situation is, to my point of view, the norm for this country. We tested all three second year classes in that school and tried another first year without great success realizing from the beginning of that last day of

testing that all first year school children in the country are incapable until the end of their school year to accomplish much by way of reading.

A total of 469 school children were tested, out of which 266 were in the second year of testing. School #01 tested 319 school children, and School #02 tested 150.

Some observations follow:

1. Five students have incomplete identification and we could not get their whole birthdate.
2. As far as the test itself is concerned, I have the following remarks:
   a) The problem of Indian numerals (not those used to number the test items which were all re-numbered) made Item 66 impossible for most first and second graders. Those who scored correct answers must have used their intelligence relating the question to Item 68 on the same page.
   b) Items 67 and 150 relate to the order of the letters in the alphabet and that order is never told in our system of education. I myself would have been unable to answer both questions.
   c) In Item 72 the school children were given the four Arabic numerals either orally or in writing (on the boards).
   d) Items 50, 54, and 64 (answer 3) are very ambiguous visually and most children did not know what to do with them. The oriental "headgear" in 54 was not at all understood.

e) Item 65 shows that proposed answer I (the grazing cow) was frequently seen as the answer because of the association "non-smoking" -forest area.

f) Items 84 and 85 relating to the "sun" and "moon" letters were not understood at all because that specific terminology is not used in our primary school system of education. It is later used in the secondary.

g) In Items 86 and 87 the meaning of the question is not easy to understand even for adults.

h) Items 107 and 108 are cases of "Yes, we want no bananas".

i) Items 41 and 106 are good examples of lexical differentiation between Machrak and Maghreb.

There is only one remark now at the level of coding. Every empty space in the form indicates that the question was either not answered at all or that there was more than one answer.

APPENDIX F

Advisory Committee for the AL MANAAHIL Project

AL MANAAHIL ADVISORS

Dr. Muhammad Ibrahim	Chief Academic Advisor—AL MANAAHIL Director of Language Center University of Jordan	JORDAN
Dr. Fakhri Tomalia	Dean of Students and Instructor of Arabic Methodology UNRWA Amman Training Center	JORDAN
Dr. Farid Abu-Zeina	Director Educational Research and Development Center Yarmouk University	JORDAN
Mrs. Zeinab Yassin	Undersecretary for Educational Programs, Ministry of Information	EGYPT
Dr. Yehia El-Ezzabi	Professor and Vice Dean of Academic Affairs The American University of Cairo	EGYPT
Mr. Galal El-Rashidi	Undersecretary and Advisor to Ministry of Information and Director of Information, Education and Communication Center	EGYPT
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Dr. Riyad El-Marzouki	Professor of Faculty of Arts, University of Tunisia and Director of National Radio Tunisia	TUNISIA
Dr. Abdo Rabo Garada	Undersecretary Ministry of Education	YEMEN ARAB REPUBLIC
Dr. Mohamed Al-Shahari	Director of Educational Research and Development Center	YEMEN ARAB REPUBLIC
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